

# **ISO/IEC 25012–BASED METHOD FOR ONTOLOGY’S QUALITY EVALUATION OF INTELLIGENT SYSTEMS KNOWLEDGE BASES**

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In the article ISO / IEC 25012 is considered as the basis for developing the method for the ontology’s quality evaluation of the intelligent systems knowledgebase’s. The basic indicators of the standard have been considered and an attempt to adapt them to the ontology’s quality evaluation has been made. The quality of the software should be high enough to ensure the success of electronic processes in all areas of life. Hence, the data processed by the software must meet specific characteristics of the data quality. Ontology’s have been used to solve several problems of a methodological and a technological character, which arise during the creation of the knowledge bases. In the article, the basic quality characteristics of the intelligent systems from ISO / IEC 25012 (usability, credibility, understandability, accessibility, portability, recoverability, security) have been described. Owing to the considered class of information systems being designed on the basis of ontological domain model, these characteristics depend directly on the ontology’s quality. By way of example, the process of creating the ontological model of nosology is described and illustrated in the article. It is a well-known fact that the general ontology’s are used to represent concepts that are common to a large number of areas. But, if the system uses specialized ontology’s and develops, it may be necessary to merge them. The ontology of nosology has been constructed to solve the problem of the persons with various disabilities access to the information resources. The source for the construction of the ontology of nosology has become its classification and approaches to overcoming the disabilities effects. The appropriate classification and approaches have been converted into the software tool Protégé. One of the main tasks of further research will be the problem of evaluating the novelty of knowledge that has been proposed to be added into the ontology.

Keywords – ontology, intelligent system, evaluation of quality, data, knowledge base.