

# **PATTERNS OF REQUIREMENTS DESIGN TO INFORMATION SYSTEM**

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Purpose of the article - development of basic definitions and models that allow to describe the formalized approach to the use of patterns as templates, allowing the use of the knowledge gained in previous projects creating information system runtime IT-project to create a new information system.

The article solves the problem of developing a model of patterns of requirements design to information system and to identify a pattern in the use of information technology generating and analyzing requirements to information systems.

Object of study in this article are methodologies, architectural frameworks, and information technology design of information systems aimed at the identification and analysis of requirements to information systems.

Subject of study in this article are models of patterns of design requirements to information system.

In this article were obtained the following results:

- first developed a generalized category-theoretic model patterns of requirements design to information system, which describes the representations of patterns at the level of data, information and knowledge, and the relationships of these representations;

- first developed a generalized category-theoretic model of information technology generating and analyzing requirements to information system, which describes the processes of formation of patterns of requirements design to information system on the base of requirements, which pushed, and usage patterns to identify and analyze requirements to information system;

- modified the definition of a pattern of requirements design to information system in relation to the identification and analysis of requirements to information system.

The practical value of this article - defines the main features of the application of design patterns in the process of identifying and analyzing requirements to information system.

All scientific and practical results obtained by the author in person.

The use of information technology development and analysis of requirements for information system, which is based on the proposed model pattern of requirements design to information system can solve the problem of reusing requirements to information system by forming and continuous updating of the knowledge base of objects and processes that are automated and learn about new approaches to formulating requirements and means of representation. So instead of reusing certain requirements to information systems, which makes the desired effect, it is proposed to carry out the re-use of knowledge identified during the formulation and analysis requirements that have been put forward to the information system, set up IT service providers before.

Keywords – information system, requirement, pattern, theoretic-categorical model.