ONTOLOGIES AND META-MODELS APPLICATION FOR DYNAMIC INTEGRATION OF SEMISTRUCTURED DATA

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This paper discusses the use of ontologies and meta-models for the creation of the system of dynamic integration semi-structured data.

The aim of this work is the usage of existing technologies to create a tool that allows end users to extract the unified information from multiple heterogeneous data sources, providing the necessary data transformation and use concepts that are understandable to the user.

The task of data integration is to connect data from different sources and provide users with a unified representation of the data, including the possibility of giving the user interesting information upon request. Data integration system frees the user from having to select different data sources, which contains the information the user needs, to refer to each source separately and manually compare and merge data from different sources.

The object of research is the process of dynamic integration of semi-structured data in web-systems. The process of converting semi-structured data into structured information has been described. The subject of research is the use of ontologies and meta-models for dynamic integration of semi-structured data in web-systems.

Scientific novelty and practical value are in the use of ontologies and meta-models for the creation of dynamic integration of semi-structured data in web-systems, taking into account the integration of data at different levels of complexity: physical, logical and global.

The article shows the functioning of the Universal Browser of dynamic integration of semi-structured data in web-systems. The conceptual model of a universal data storage structure has been described. The principles of work of the Universal Browser, which has been described in the paper, can be used for creating the web-systems of dynamic integration of semi-structured data of various nature.

Keywords – dynamic integration, ontology, meta-model, web-system.