ANALYSIS OF INFORMATION RESOURCES IN DYNAMIC SEMI-STRUCTURED WEB DATA INTEGRATION SYSTEM

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This paper describes the analysis of the information resources in the dynamic integration system of the semi-structured data on the Web.

The aim of this work is to apply the existing technologies to the formation of the analysis procedure of the common features definition of information resources and relationships identification between them in order to create the system model that allows the finale users to extract the unified information from the multiple heterogeneous data sources.

The object of the research is the definition process of the information resources common features and the relationships identification between them in the dynamic integration system of the semi-structured data on the Web. The subject of the research is the application of the rules of the "black box" method to creating the object adapter identifying common features of information resources and recognizing relationships between them and agent-oriented approach for creating the structural-dynamic model of the data domain of the mash-up application in the specified time.

The scientific novelty and the practical value are in the usage of the combination of rules of the "black box" method and the agent-oriented approach in the dynamic integration system of the semi-structured data on the Web.

The process of creating the object adapter of the common features of the information resources identification and the relationships recognition between them using the rules of the "black box" method has been considered, based on the model of the general definition of the resource description language and the rules of the access to resources. The object adapter consists of two subsystems: the object component and the configuration component of the transformation resource description. The object component performs the multiple extractions of objects or system migrations according to the resource and map information and automatically generates re-used objects or the transformed system. The configuration component is used to generate the resource description and the mapping rules that the object component needs.

Keywords – information resource, dynamic integration, mash-up application, wrapper of information resource, "black box" method, agent-oriented approach.