DEVELOPMENT OF AN INTERACTIVE CATALOG FOR TILLAGE TOOLS USING DELPHI AND SQL

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Annotation - This article proposes a new approach to selecting and comparing various types of tillage tools, specifically arrow-shaped paw, by combining an interactive database with their images, using Delphi and SQL. The proposed interactive tool allows users not only to view different types but also to analyze their characteristics and visualize their shapes.

Keywords - interactive catalog; geometric modeling; tillage tools; arrow-shaped paw plows; Delphi; SQL, FastReport framework.

Formulation of the problem. Traditional methods of presenting information, such as catalogs or web resources, are usually quite voluminous and their analysis can take a lot of time and effort. Therefore, there is a need for a new approach that would combine the database with the possibility of visualizing the forms of the working bodies of tillage tools. This would help users better understand and compare different models of these tools. The problem is the need to create a convenient and interactive catalog for the selection and classification of tillage tools, which would take into account its various characteristics.

Formulation of goals. The main goal of this article is to propose the creation and application of a new tool for selecting and comparing different types of tillage tools, specifically arrow-shaped paw used in cultivators for soil processing, by combining an interactive database with model visualization. This tool is aimed at providing users the ability to efficiently analyze and compare different types of paws considering their technical characteristics and visual aspects, enabling them to make informed decisions when choosing agricultural equipment for specific conditions and needs.

Main part. The interactive information system was developed based on the FastReport framework (Fig.1), which uses the Delphi and SQL programming languages. TreeView components were used to retrieve information from an integrated database processed by SQL tools. The user-friendly interface allows for seamless navigation and efficient data management, ensuring that users can quickly access the required information.
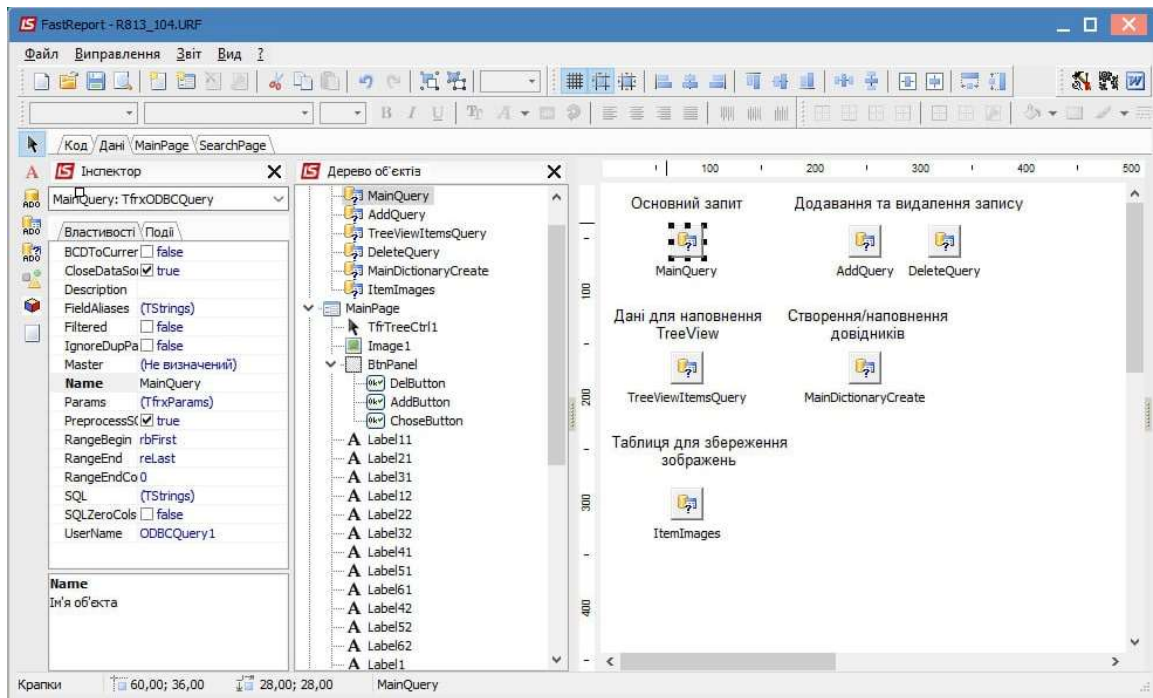
Fig. 1. Fast report development environment

Users can view images of the implements and the characteristics of each type (Fig.2), making comparison and selection easier. The classifier provides quick search and filtering of arrow-shaped paw. This allows you to quickly get information on the specified parameters.
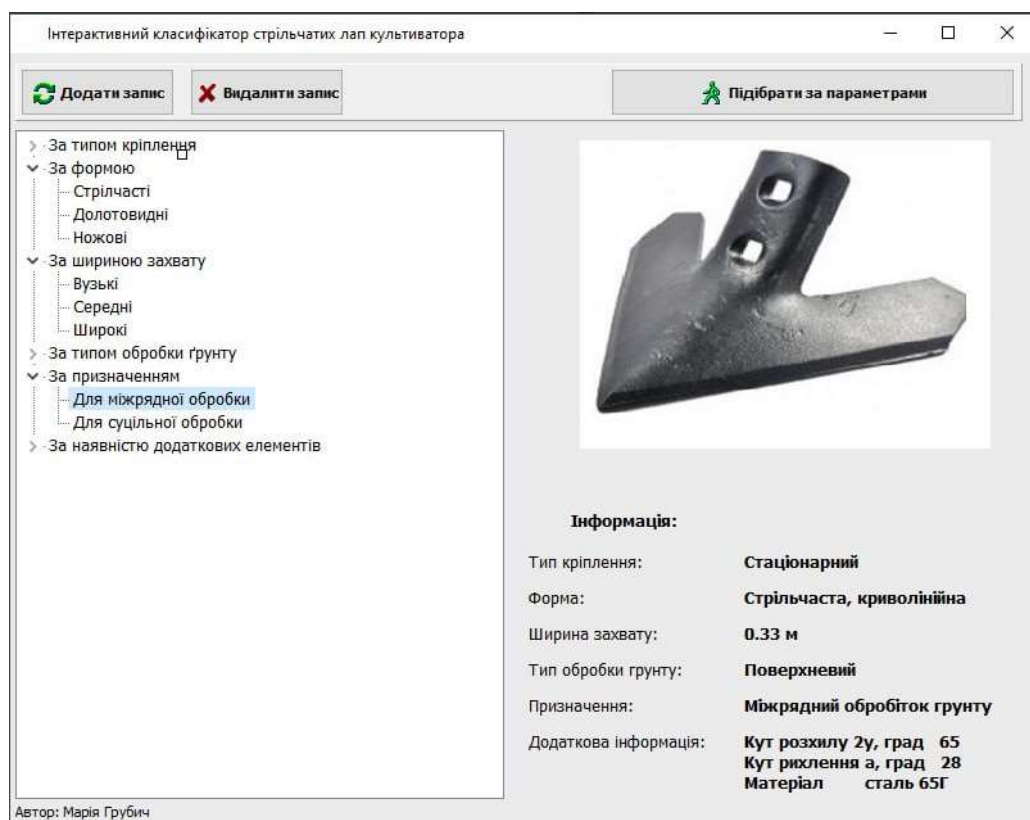

Fig. 2. User interface of application

Conclusions. The functionality of the application makes it possible to use it in the future as a web service for placement on profile sites. The architecture of the SQL queries used makes it possible to receive data from various sources and store them in a unified format, which simplifies the further support of the software complex and makes it a convenient tool for aggregation and use of the knowledge base on this topic. This environment allows you to add and change data, and also provides the ability to easily scale the system to a catalog with all existing tillage tools if necessary.

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