Full processing algorithm in MATLAB to highlight the area of a certain color range as a separate function has the form:

```
function b = myimage (I)
BWR = roicolor (I (:,:, 1), 185, 225);
BWG = roicolor (I (:,:, 2), 245, 255);
BWB = roicolor (I (:,:, 3), 20, 60);
BW = (BWR & BWG & BWB);
b = edge (BW ' canny ' 0.15, 2);
end
```

As an argument at the entrance the function uses a three-dimensional matrix of the source image, and the output of the function is a three-dimensional matrix result.

To create a dynamic library from the given function we apply MATLAB Coder tool that generates standalone C or C++ code, static or dynamic library from MATLAB code. The generated code is easy to read by programmers and it is platform independent. In the process of creating a dynamic library all data types of used variables were identified. On completion of the MATLAB Coder module standalone Si code and shared library with all uppercase files that are required to connect the library to the third-party software were generated.

Conclusion. The comparative analysis of the software for radar image processing is made. To implement the third-party algorithm for image processing, the software product PolSARPro is chosen. PolSARPro is a free software product with open source code. The algorithm for selecting the area of a certain height based on the determination of the color range on the radar image is developed. By means of MATLAB Coder *the algorithm* was converted into dynamic link library in the form of separate function.

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DEVELOPMENT OF TRAINING APPLICATION USING GIS ENVIRONMENT

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This paper describes an application-quiz used for geographical training that was developed using GIS environment and Visual Basic for Applications. It may be useful for studying geography and collateral subjects.

Nowadays, geoinformational systems with its diversity of functions and wide range of opportunities may be used not only for digital mapping, but also as training tools.

In the process of our work, we created a training application, some kind of game. The goal of this game is to guess district of the Republic of Belarus by its border, location of major settlements, places of interest and additional information.

The application was developed on the basis of software ESRI ArcGIS 9.3 and programming language Visual Basic for Applications. The dialogue is carried out through userform (fig. 1).

The application is run by the button on the toolbar, that is macro attached to it. After that randomly chosen district is showed on the map extent (fig. 1).

The player's task is to guess as many districts as he can and take as many points as he can. The quiz has three levels. The first level offers you to guess the district according to the layers of rivers, lakes, its border and the borders of the nearby districts. The maximum number of points you can get at the first level is 10. On the

second level, only layers of major settlements, the border of the district and the borders of the nearby districts are shown. The maximum number of points on this level is 15. The third level offers you to guess the district only by the border of the district and its settlements. The maximum number of points is 20. The application uses the definition query to show objects of the layers of cities and districts.

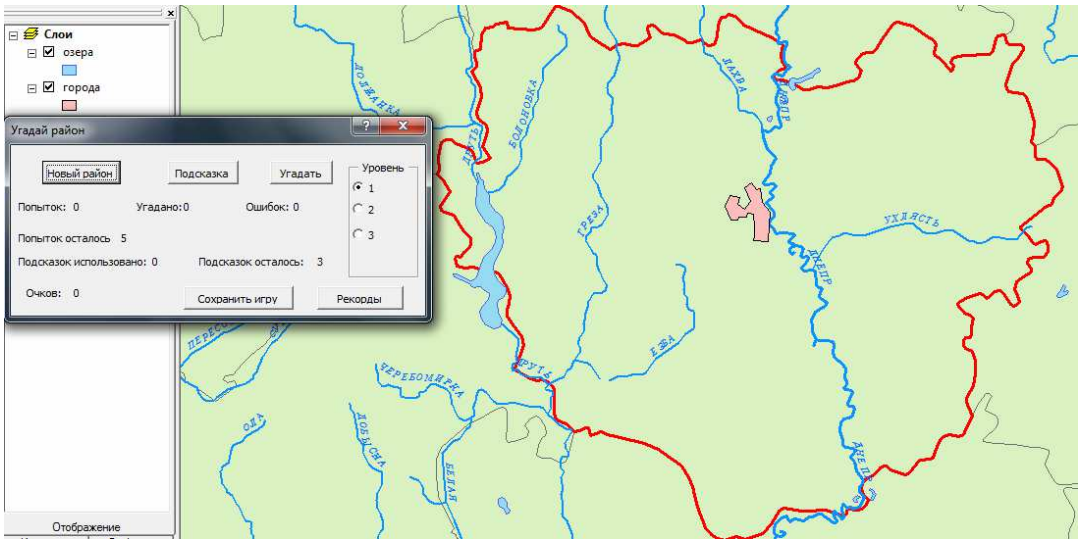

Fig. 1. Application interface

Each used hint or a wrong answer reduces score for the district by one.

The number of attempts to guess every district, number of right and wrong answers are recorded into an attribute table. Thus, you can learn which district is the easiest to guess and which is the most difficult.

You have three possible hints per each district: an interesting fact about it, the first letter of its name and the name of region, where it is situated. The hint is activated by clicking the button 'Hint'.

You can add any information to the field in an attribute table that contains interesting facts. It depends on the area of knowledge, in which the application is used.

After 10 guessed districts, the window with your score and the maximum possible score appears. The application reminds you to save your progress, that may be shown in another window.

When the userform is closed, the application asks you to save your progress, choses null character as definition queries, shows all layers visible in full extent, returns map to the full extent (fig. 2).

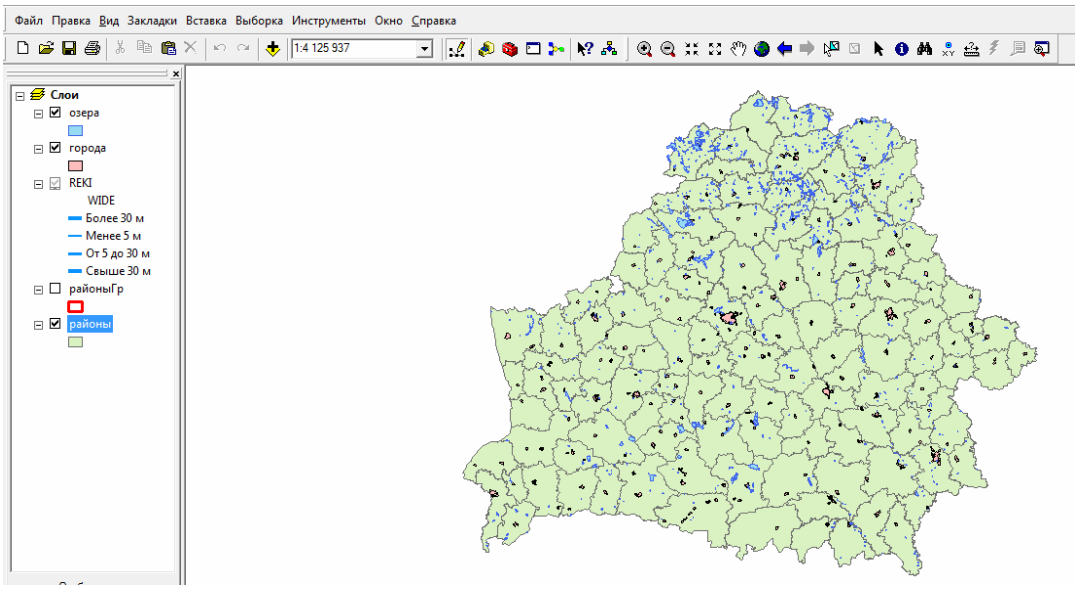

Fig. 2. Full extent

Program code does not contain any names of layers, fields in attribute tables, so it may be easily adapted to any map, for example to the world map.

Developed application may be used as a training aid for studying geography, history and other subjects, as an interesting game that can improve personal knowledge about districts of Belarus or in pedagogical researches.

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THE PROBLEMS OF SERVICE REALIZATION TO CHECK WEB SITES APPLYING USABILITY INDICATORS

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The article considers the concept of "site" and site functions, analyzes e-commerce sites and online stores in terms of usability, and provides a scheme for the development of an automated audit Web site usability service.

Website (from the English Website: web – "Wide Web, the network" and the site – "place", literally "place, a segment of the network") is a set of electronic documents (files) of an individual or organization's computer network united under one location (domain name or IP-address). All sites together comprise the World Wide Web [1].

When creating sites, entirely different goals can be pursued, depending on which, sites can be divided into several groups: business card site, online store, corporate information website, corporate image web site, information site, game portal, personal project, content-project, promotional sites, online forum, a blog [2].

The main purpose of any site is to inform visitors about various information. The site should be also convenient and easy to use.

The complexity of usability assessment lies in network users' variety of tastes and preferences: nationality, geography, religion, accepted standards, subjective opinion. All this prevents from creating a universal system of quality assessment.

For simplicity, the study was limited geographically and thematically. Of all the abundance of various sites, the survey considers corporate websites and online stores in the CIS.

A corporate site is perfect for an image presence online. The site provides information about the company, history of the brand, information about the services rendered or goods supplied. A corporate site usually contains the company's newsfeed, publication means of advertising and sales promotion information, press information, and other information. Corporate sites often combine the products catalog and the information about the company. The sites use an exclusive original design, showing the advantages of the company, focus on innovative ideas and solutions in the design, and keep to the percentage of text / graphics = 50/50 [2].

An Internet shop is an interactive web site, which advertises a product or service, receives purchase orders, offers the user the choice of payment options, issuing invoices for payment, thus confirming the order. The store administrator shall organize the delivery of goods and monitor the buyer's payments for it [2].

Forty sites were selected from the above-mentioned categories for the analysis and all the hypotheses were tested on their example.

Here are the examples of ten high-quality sites:

1 Prefab homes turnkey (http://woodbud.by).
2 JSC "Ruchaika» (http://www.ruchaika.by/).
3 SPAS SERVICE Mogilev (http://spas-auto.by/). The site is in Fig. 1.
4 Truck Platforma (http://truck-platforma.ru/).
5 Gletcher - Air pistols (http://gletchergun.ru/).
6 WildBerries - Online store of clothing and footwear (https://www.wildberries.by/).
7 Online Store amd.by (http://www.amd.by/).
8 Stroi-Souz (http://stroi-souz.ru/).
9 Children's toys Internet shop (http://www.happytoys.by/).
10 Yarn shop in Minsk (http://manidoro.by/).