

USING ARCGIS SOFTWARE IN CREATING A LAND MELIORATIVE MAP

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Annotation: At present, information technologies in all spheres of the republic, including residential areas, agricultural enterprises, have developed to such an extent that the improvement of cadastral work has become a requirement of the time. Creating digital maps will require new modern tools and software. In particular, the program ArcGIS 10.8, which is currently under development, is very useful for creating new digital maps.

Keywords: Melioration, map, ArcGIS, attribute, Sasplanet.

Currently, information technology has developed in all areas of our Republic, including residential areas and agricultural enterprises, to such an extent that the improvement of cadastral work in them has become a demand of the times. It is important to create and work with digital maps. Creating digital maps will require new modern tools and software. Including ArcGIS 10.8, which is currently in production, is very useful for creating new digital maps. Working with maps created using this program further expands the user's capabilities. Therefore, the improvement of map creation using this program is the demand of the times.

Reclamation (Latin: melioratio- improvement), agricultural reclamation is a series of organizational economic, engineering and agrotechnical activities aimed at fundamentally improving the productivity of land. ArcGIS 10.8 was developed by ESRI, which provides the ability to work with objects with their geographic information and attribute information.[4]

In ArcGIS 10.8, it is very convenient to collect and maintain a database. To create digital maps in ArcGIS 10.8, we need to do the following:

- the ground is photographed from the air with a camera of the aerogeodetic organization and brought to the coordinates;
- the pictures will be taken and decoded;
- we download the pictures to the ArcGIS program according to the scale.

SAS. Planet is a program that allows you to study the map of the world from a satellite, and in terms of its functionality, it is similar to such popular programs as Google Earth and Yandex Maps.

SAS planeta contains more cartographic material than other programs of its kind.



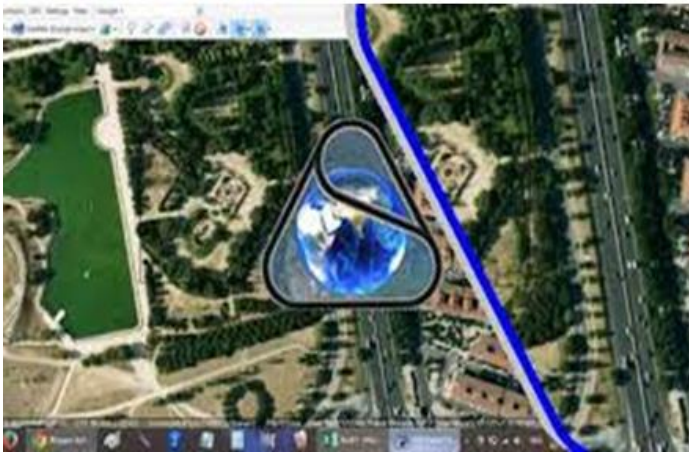


Figure 1. Overview of the Sasplanet program

Its database includes Google Earth 2021, Yahoo, Virtual Earth, Open Street Map, iPhone maps and topographic maps of some areas, as well as maps of the planets Mars and the Moon for researchers and just curious geographers.

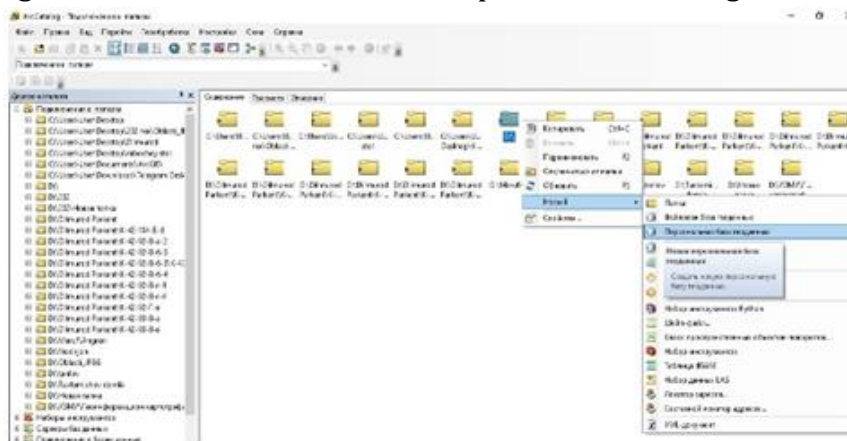
SAS. The Planet program allows you to get detailed information about another country or a specific city, topographic information of the place, as well as its streets, (street panoramas) and architecture of buildings. Based on the decoded images, they are plotted in Arc GIS 10.8 software, along with data input. We use two main sections in Arc GIS 10.8 to create a land reclamation map.

1. Arc Catalog.
2. Arc Map.

Section 1. The Arc Catalog section is where a database is created and the necessary system coordinates are entered into the database. Thematic conditional symbols are created in the resulting work window.

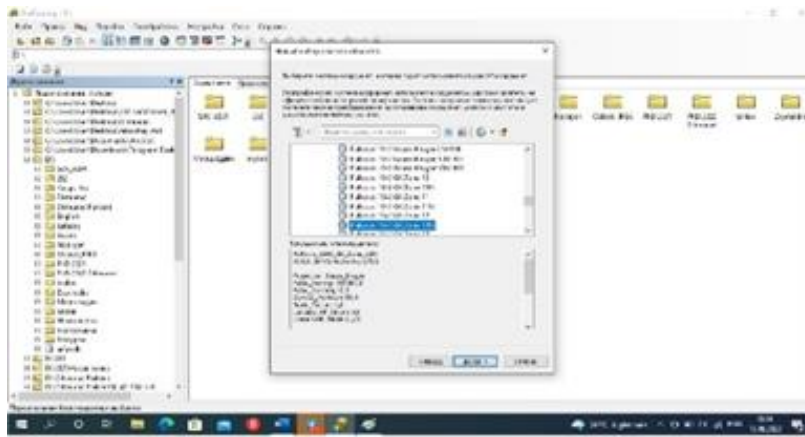
Before starting work in the Arc Catalog section, we enter the coordinates of the work.

Section 2. To start Arc Map, i.e., the program, it is brought to the working state by clicking the left mouse button on Arc Map from the working window.



2 - picture. Arccatalog section overview.

Click the Add button and the required information will appear in the Arc Map window. In the working window of Arc Map, we show the base created by Arccatalog.



3-расм. База яратишда система координатанлаш

The editor panel will open, select from the editor panel and select the desired layer and



data is created using these symbols.

The required information is entered into the linear objects. For example, we can take roads, hydrography, borders, horizontals, canals, ditches, water pipes and other linear objects.

Figure 4. Overview of the Arc Map window.

Below is an agricultural map prepared in Arc GIS 10.8 (Figure 4).

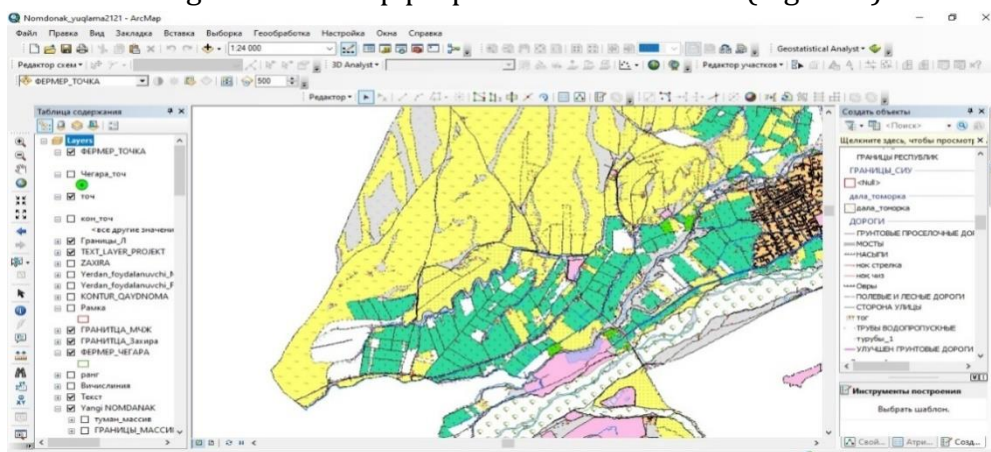


Figure 5. Electronic digital map drawn in the Arc Gis 10.8 program.

In conclusion, it should be noted that the use of Arc GIS software in the creation of high-resolution digital maps today saves the user's time and facilitates the ongoing work. The implementation of these digital maps in production is of great importance in increasing productivity.

References:

1. Сафаров Э., Мусаев И., Абдурахимов Н. Геоахборот тизими ва технологиялари. Т.: ТИМИ, 2008., 160 б.
2. Булатова Г.Н., Трафимов А.М., Панасюк М.В. Тенденция развития ГИС. Журнал «Геодезия и картография», №9, 1997 г.
3. Суюнов А.С., Картография. Тошкент.: "Инновасион ривожланиш нашриёт-матбоа уйи, 2021. 273с.
4. Гулямова Л.Х. Географияда аерокосмик услублар. Тошкент.: Ўқитувчи, 1993
5. Берлянт А.М. Картоведение. М.:Изд-во Аспект Пресс, 2003.

6. Usmanovich, S. T., Rashitovich, S. S., & Adkhamovich, B. U. (2022). It is Currently Modern in the Field of Geodesy Application of Levels. EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION, 2(4), 193-197.
7. Usmanovich, S. T., Rashitovich, S. S., & Adkhamovich, B. U. (2022). SURFACE CONTROL OF HELIOSTATS. Gospodarka i Innowacje., 22, 355-357.
8. SAFAROV, T., UROKOV, O., & SAMANKULOV, S. R. (2020). Studies Of Axes Of Heliostat Rotary Turning Devices. International Journal of Innovations in Engineering Research and Technology, 7(05), 144-145.
9. Ibraimovna, M. F. (2023). Palaces of the Timurid Period of the middle Ages of Uzbekistan. JOURNAL OF ENGINEERING, MECHANICS AND MODERN ARCHITECTURE, 2(2), 24-28.

