



CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES

Volume: 03 Issue: 12 | Dec 2022 ISSN: 2660-5317
<https://cajotas.centralasianstudies.org>

Features of Creating a Database with the Help of Programs Arc GIS 10.8 And UZKAD

Begimkulov Dilmurod

PhD student at the Samarkand State University of Architecture and Civil Engineering

Mulodjanova Gulnoza Mukhiddinovna

PhD student at the Samarkand State University of Architecture and Civil Engineering

Received 19th Oct 2022, Accepted 18th Nov 2022, Online 24th Dec 2022

Abstract: *This scientific article describes the features of the application of the Arcgis 10.8 program, as well as the use of this program in conjunction with the UZKAD software.*

Keywords: *Arc GIS 10.8, UZKAD, attribute information, digital maps, geographic information, coordinates.*

Introduction. At present, information technologies have 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 requirement of the time. It is important to create and work with digital maps. Creating digital maps will require new modern tools and software. Including Arc GIS 10.8, which is currently in production, is very useful for creating new digital maps. Working with maps created with this program further enhances the user experience. Therefore, the improvement of creating maps with this program is necessary.

Arc GIS 10.8 was developed by ESRI, which provides the ability to work with features with their geographic information and attribute information.[4]

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

- the earth is photographed from the air by a camera of an aerogeodesic organization and brought to the coordinates;
- pictures will be taken and deciphered;
- upload photos to the ArcGIS program in accordance with the scale;

SAS.Planet is a program that allows you to study a world map from a satellite and is similar in functionality to popular programs such as Google Earth and Yandex Maps. SASplaneta contains more mapping material than any other program of its kind.

At present, information technologies have 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 requirement of the time. It is important to create and work with digital maps. Creating digital maps will require new modern tools and software. Including Arc GIS 10.8, which is currently in production, is very useful for creating new digital maps. Working with maps created with this program further enhances the user experience. Therefore, the improvement of creating maps with this program is necessary.

Arc GIS 10.8 was developed by ESRI, which provides the ability to work with features with their geographic information and attribute information.[4]

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

- the earth is photographed from the air by a camera of an aerogeodesic organization and brought to the coordinates;

- pictures will be taken and deciphered;

- upload photos to the ArcGIS program in accordance with the scale;

SAS.Planet is a program that allows you to study a world map from a satellite and is similar in functionality to popular programs such as Google Earth and Yandex Maps. SASplaneta contains more mapping material than any other program 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.

Placing and using geodata in the UzKAD program

Data entry procedure using the UzKAD program (<https://mulk.kadastr.uz>).



Figure 2.

The program is entered with a special login-password given to the employee responsible for working with this program.

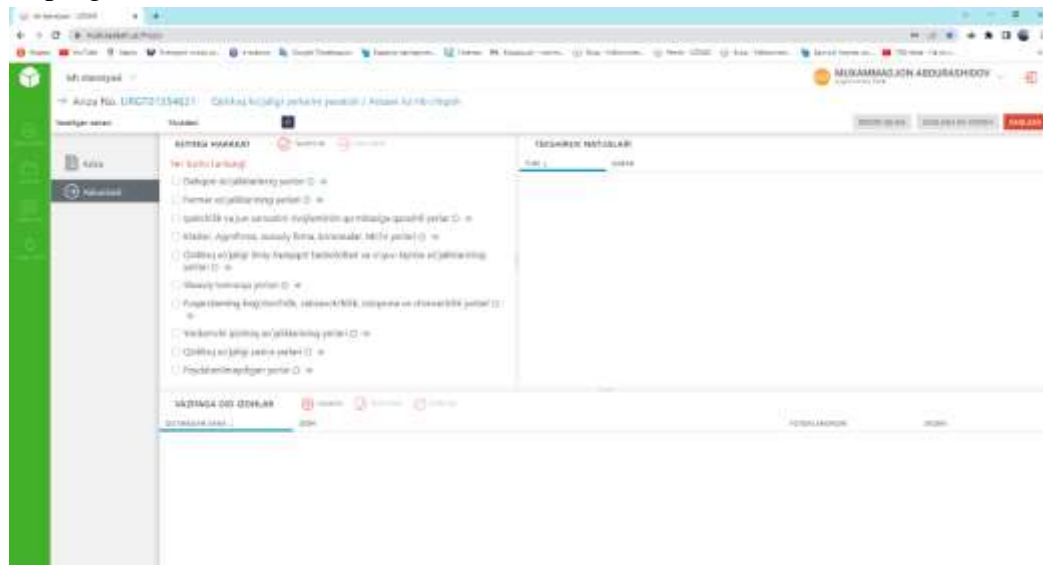


Figure 3.

Land types are included in the appropriate sections depending on their category.

5. Land types are determined by category.

For example, the inclusion of agricultural land used for agriculture.

The window for uploading the (Shp) file created in the ArcGIS program of the land plot to the UzKAD program.

The process of uploading the (Shp) file created in the ArcGIS program of the land plot to the UzKAD program ((the date of creation of the Shp) file is entered and the file is selected).

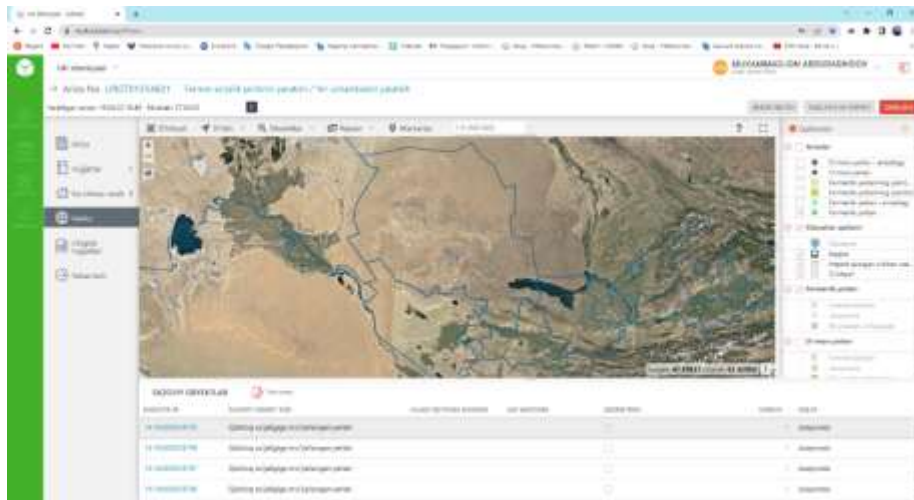


Figure 4.

The window for uploading the Shp file to the Geoportal

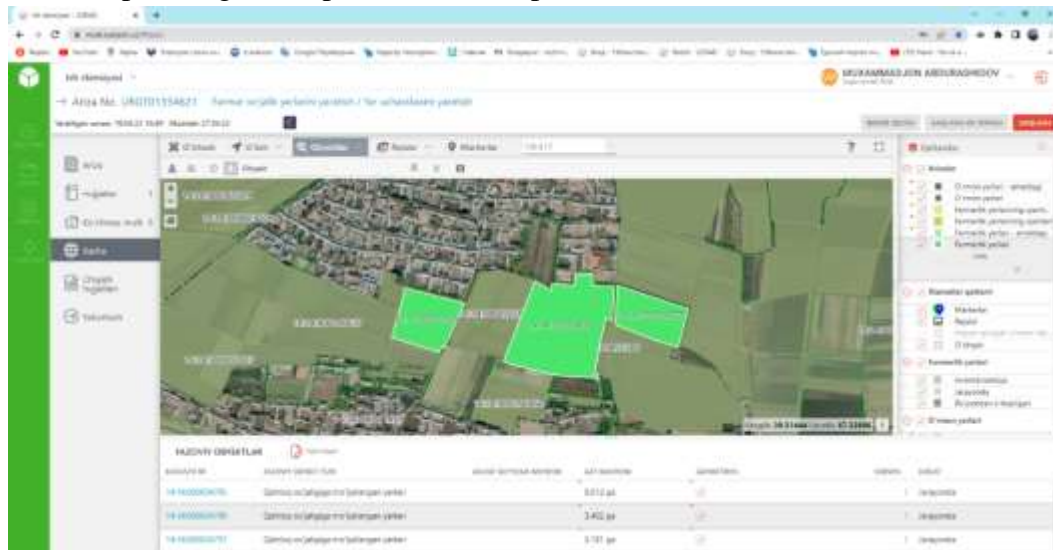


Figure 5.

(Shp) general view of the land plot along the boundary lines of the uploaded location based on the file. In this program, each plot of land is automatically assigned a special identification cadastral number. 11. Entering land type divisions into the plot area



O'zbekiston Respublikasi Davlat soliq qo'mitasi buzuridagi Kadastr agentligi
Samarqand viloyati

QISHLOQ XO'JALIGIGA MO'LJALLANGAN YER UCHASTKASI KADASTR PLANI

MAYLUMOTLAR	
Ob'ektning yagona identifikatsiya raqami:	14.14.00004795
Ob'ektning hisobot beriyicha yer maydoni (ga):	9.01
Amaldagi yer maydoni (ga):	9.01
Ob'ektning qo'shimcha yer maydoni (ga):	9.01
Til:	

YER UCHASTKA PLANI



Ismi: _____ MUHAMMADIN ABDURASHIDOV

Imzo: _____

Figure 6.

12. A land plot cadastral passport is created by a topographer.

A land plot plan is prepared by a topographer in the UzKAD program.

14. In the UzKAD program, the land plot creation part is completed and sent to the regional State registrar in the department for state registration.

15. The part of land plot creation in the UzKAD program has been completed and the applications received by the regional State registrar in the department for state registration.

16. In this section, the legal documents that serve as the basis for the state registration of the plot of land are uploaded.

17. Information about the person using the plot of land is uploaded

18. The entered data will be verified and proceed to the next step

19. At this stage, registration is carried out.

20. Based on the legal documents of the land user, the term of land use is indicated.

21. Data of the land user is attached to the plot of land.

22. The state registrar confirms this land plot in the name of the land user by means of an electronic signature.

23. The registry forms a copy of state registration through exit documents.

In short, an extract from the register stating that the plot of land has been registered with the State Register. It shows information about the land user, the cadastral number of the land plot, direction, legal documents, the area of the land plot and information about the state registrar.

References

1. Сафаров Э., Мусаев И., Абдурахимов Н. Геоахборот тизими ва технологиялари. Т.: ТИМИ, 2008., 160 б.
2. Булатова Г.Н., Графимов А.М., Панасюк М.В. Тенденция развития ГИС. Журнал «Геодезия и картография», №9, 1997 г.
3. Suyunov A.S.,i dr. Kartografiya. Uchebник. Т.: “Innavasion rivojlanish nashriyot-matbaa uyi, 2021. 273s.
4. Gulyamova L.X. Geografiyada aerokosmik uslublar. Toshkent.: O’kituvchi, 1993
5. Verlyant A.M. Kartovedeniye. M.:Izd-vo AspektPress, 2003.
6. Kartogrfiya na rubeje tisyachaletiy. Dokladi 1 Vserossiyskoy nauchnoy konferensii po kartografii. M.:1997
7. www.esri.com
8. Муллоджанова, Г. М. (2020). МАВЗУЛИ ХАРИТАЛАРНИ ЯРАТИШДА МАЪЛУМОТЛАР БАЗАСИНИ ШАКЛЛАНТИРИШ. ЖУРНАЛ АГРО ПРОЦЕССИНГ, (SPECIAL ISSUE).
9. Suyunov, A., Suyunov, S., & Urokov, O. (2021). Application of GIS on Research of Horizontal Refraction in Polygonometry on Network. In E3S Web of Conferences (Vol. 227, p. 04003). EDP Sciences.
10. Suyunov, A., Suyunov, S., Aminjanova, M., & Rakhmatullaeva, K. (2021). Improvement of the method for comparing subsidence of structures using the Fischer’s F-test and the Foster-Stuart test. In E3S Web of Conferences (Vol. 227, p. 04005). EDP Sciences.