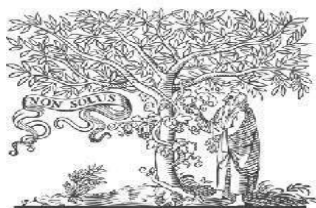




COPY RIGHT



ELSEVIER
SSRN

2023IJIEMR. Personal use of this material is permitted. Permission from IJIEMR must be obtained for all other uses, in any current or future media, including reprinting/republishing this material for advertising or promotional purposes, creating new collective works, for resale or redistribution to servers or lists, or reuse of any copyrighted component of this work in other works. No Reprint should be done to this paper, all copy right is authenticated to Paper Authors IJIEMR Transactions, online available on 31st May 2023.

Link : <https://ijiemr.org/downloads/Volume-12/Issue-05>

10.48047/IJIEMR/V12/ISSUE05/63

Title: Technology of creating digital cadastral maps and plans in the traditional way

Pages: 680-682

Paper Authors

Khusanova Mashhura Islamovna, Isakov Muyassar Komilovich, Kuvatov Ilhom Khasanovich



USE THIS BARCODE TO ACCESS YOUR ONLINE PAPER

To Secure Your Paper As Per **UGC Guidelines** We Are Providing A Electronic Bar Code

Technology of Creating Digital Cadastral Maps and Plans in the Traditional Way

Khusanova Mashhura Islamovna

senior teacher of the "Geodesy and Cartography" department, "Geodesy.

Isakov Muyassar Komilovich

doctoral candidate (PhD) majoring in cartography

Kuvatov Ilhom Khasanovich

postgraduate student of the Department of "Geodesy and Cartography"

Teachers of "Geodesy and cartography" chair of Samarkand state architectural and civil engineering institute 1,2,3

Abstract: The ability to depict objects in a modern way is the most important. The process of using such information technology has changed radically, as a result of the use of workstations and remote control methods, the determination of object coordinates is significantly simplified, and the direct representation of objects on the map is replaced by the creation of object models in the information system.

Keywords: *Working with a digital model, using Credo, Trimble Gromatic Office,*

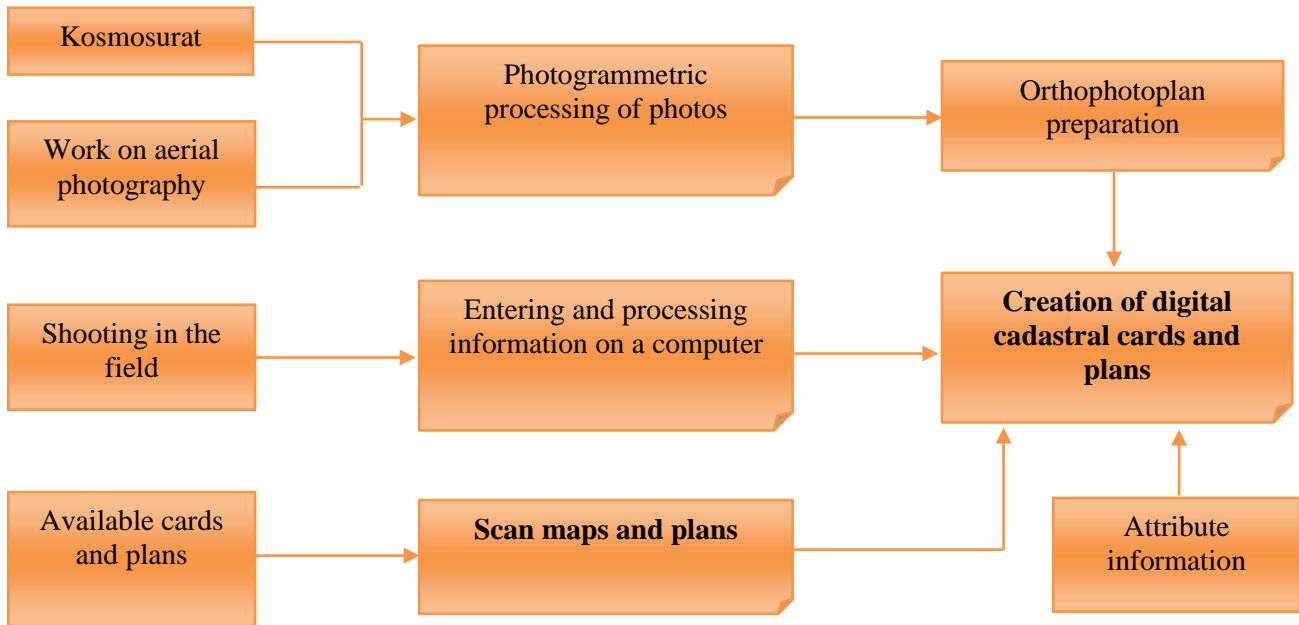
Introduction

If digital cadastral systems meet modern requirements, the map function will have to be revised. They only display the data received from the database on the screen. The new capabilities of information technology will significantly change the work of land developers. In the past, the ability to map objects and map them to a coordinate system required specialized knowledge. Nowadays, the ability to describe measured objects in a modern way is considered the most important.

Today, the process of using information technology has changed radically. As a result of the use of workstations and remote control methods, the determination of object coordinates has been significantly simplified; the direct representation of objects on the map has been replaced by the creation of a model of objects in the data system. The result of this process was a data model of the real world. Maps are created using presentation functions that work with these modelless plotters and other suitable techniques. Due to the use of modern technologies, the speed of data transfer is increasing. Geographic information is transmitted over data channels. The Internet and its ability to connect with the world information network play an important role in

the transfer of cadastral data. In the future, transfer of cadastral information and exchange of mutual information will become daily work.

Technology of making cadastral maps and plans



The above process has several advantages:

- flexibility in information model data representation. Content, scale and type of images can be selected according to requests;
- given information is stored once;
- generated information comes from one source;
- working with a digital model, it is impossible to lose its data from a physical point of view, as in a traditional map;
- Using method sharing with digital data model, it is very easy to click and transfer cadastral data.

A digital cadastral map is usually a digital model describing a place. But in general, a digital map is a source of data acquisition model. That is, if a traditional paper map was used to enter data, then the obtained digital map will embody the digital model of this paper map. It should also be noted that a digital map is a model, it is not a digital analysis, because its creation uses specific boundaries and limitations, as stated in the digital cadastral technology.

Digital spatial data is not only digital copies of map plans, but is independent of the use of a specific program on the text layer of digital map objects: a set of conventional symbols is used in the description and publication.

The customers and main consumers of such data are, as always, the city administration, the city cadastral service, various city and company services providing communications services; digital spatial data of electricity, gas, telephone networks, data entered from digital collectors of

geodetic instruments, scanning materials were obtained by vectorization method.

As a basis, maps and tablets of scales 1:500, 1:2000, 1:5000, 1:10000, 1:50000, 1:200000 are used.

Currently, when entering new data, hard copies of maps and plans are scanned, they are converted to digital status using vectorizers (Easy Trace, Map Edit, Vector) and digital cadastral maps and plans are created in geographic information system programs (MapInfo, Geomedia, ArcGIS Arc Info).

Cartographic information is constantly changing. 1:500 scale city plans are considered to be drawn up during field surveying. Therefore, the use of digital spatial data is effective only when an up-to-date system is created and maintained in an up-to-date manner.

Paper maps and plans are used only at the data source level at the first stage to create a graphic base, when the following minimum set of non-high-quality and somewhat outdated data (Geographic Information System base level) can be used to start the work.

However, many tasks require engineering design work, land registration and accounting, high-precision coordinate geometry and rapid representation of the input image.

In addition to traditional geodetic surveying methods, GPS receivers and digital total stations are used. For camera processing of field measurements, the application and software products developed in the Arc View program are used: Credo, Trimble Gromatic Office. Digital data are calculated and directly entered into Geographical Information System programs.

Literature:

1. Mirzaliev T. Cartography.-Tashkent., University, 2006.
2. Mirzaliev T., Karaboev J. Designing and making cards.-Tashkent., "Talqin", 2007.
3. Mirzaliev T., Musaev I. M., Safarov E. Yu. Socio-economic cartography.-Tashkent.: New generation, 2009.
4. Safarov e., Musaev I., Abdurakhimov N. Geoinformation system and technologies. T.: TIMI, 2008., 160 p.
5. Safarov E.Yu. Geographic information systems.-Tashkent., University, 2010.
6. [mailto: site@tikhvin. org](mailto:site@tikhvin.org)
7. www.gov.uz/Ergeodezkadastr- State Committee of Land Resources, Geodesy, Cartography and State Cadastre of the Republic of Uzbekistan