

# VIZURA

NO 74

INFORMATION LEAFLET OF THE STATE GEODETIC ADMINISTRATION

JULY - AUGUST 2013

## Sadržaj

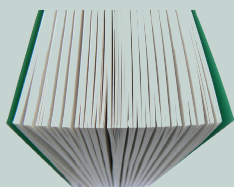
Real Property  
Registration and  
Cadastral Joint  
Information System

DGU FME Server



Determination of  
the point coordina-  
tes in Croatia

Procedure of  
producing subdivi-  
sion and other  
geodetic documents



Mixed Croatian  
and Hungarian  
professional group  
for state border

## Real Property Registration and Cadastre Joint Information System (JIS)

The most important and most demanding activity performed by the Ministry of Justice and the State Geodetic Administration within the frame of the Project related to the improvement of land registry and cadastre (since 2003) is the establishment of Real Property Registration and Cadastre Joint Information System (JIS).

In the process of reforming the land administration, the institutions have been working on the legislative in accordance with strategic guidelines, improving constantly the quality of business procedures, processes and data and creating thus excellent presumptions for the implementation of such complex and demanding project. The complexity of the project is manifested first of all in the fact that the property data kept and maintained by the two ministries are to be connected in JIS.

**On 17. June 2013, the Real Property Registration and Cadastre Joint Information System was established in Požega making it possible to keep the data of the Regional Cadastral Office Požega and the data of the Municipal Court in Požega in the joint database located in Zagreb, and to maintain them by means of a unique application for maintaining cadastral and land registry data, as well as the data from Land Database.**

The contract for the procurement and installation of JIS and Land Database was concluded among the following companies: Ericsson Nikola Tesla (Croatia), IGEA (Slovenia) and CLC (Austria), and on the basis of the decree of the Government of the Republic of Croatia, it was decided to place the joint database in APIS-IT that entered the JIS establishment support Contract and the Contract about Location, Safety, Surveillance and Maintenance of the System.

The establishment of JIS provides the creation of a new system that includes all components of the information system consisting of: JIS application, hardware, network equipment, system software at the central location in APIS, the data transmission networks between end users and central location, information and network infrastructure for end users.

JIS does not only replace the existing solution applied for the maintenance of cadastral data in cadastral office by new application solutions, but provides the establishment of a completely new system, i.e. a completely new method and organisation of work in cadastral offices. The data from 112 databases of the State Geodetic Administration (written data), as well as from 109 databases located in municipal courts and in the database of the City Bureau of Surveying and Cadastral Affairs of Zagreb, and the data contained in digital cadastral plan will be located, kept and maintained in JIS.

It is planned that JIS should have IT-communication with the fundamental state registers (PIN, RPJ and other geoportals), and that a digital archive should be established within the frame of JIS, communicating at the same time with already established digital archives. JIS shall also replace the "repository" of cadastral and land registry databases, but also the services that are available today for the citizens on web pages [www.katastar.hr](http://www.katastar.hr) and [www.pravosudje.hr](http://www.pravosudje.hr).

Instead of various models available in distributed databases, a unique data model will be made. Different methods of work in cadastral offices and land registry departments will be replaced by central process-defined actions in JIS. The information will no longer be delivered from cadastral offices to land registry departments in municipal courts on paper (application forms and z-decisions) but by means of IT technologies. ►

► All above mentioned serves not only to provide services more faster and make them high-quality services that cadastral offices and land registry departments in municipal courts are to provide to user, but also to establish safety and real estate transactions, and to ensure the trust in land registry. Cadastral and land registry data that have become harmonized real estate data, will be moved to the Land Database in JIS and will be kept in accordance with the business process that have been developed for that purpose. Pursuant to the Law on Land Registry „*Land Database (LDB) consists of cadastral information about the cadastral municipality, number of cadastral plot, shape, area, development and usage, and of the land registry data related to the title holders, legal facts and personal relationships. In LDB, the bodies responsible for cadastre are competent for cadastral data, and land registry courts are competent for the data about title holder, legal facts and personal relationships.*”

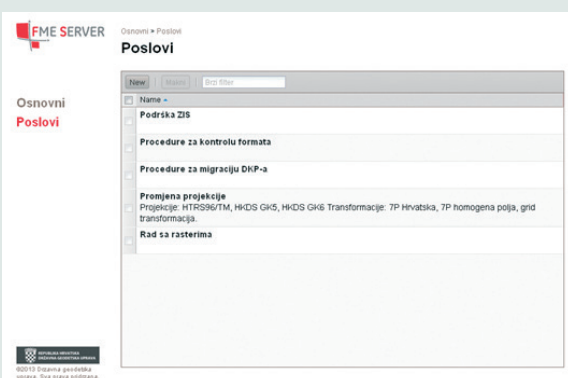
The concepts and principles of business processes that have been developed for harmonized data in LDB have been used for the development of business processes with not harmonized data, which should increase the quality and the percentage of data harmonization between the two institutions and speed up the establishment of LDB in other parts of Croatia. In accordance with strategic plans of the institutions and with the Conclusion of the Government of the Republic of Croatia related to the need of establishing JIS in all cadastral and land registry offices, the Stage Geodetic Administration and the Ministry of Justice intend to organise the establishment of JIS in other cadastral and land registry offices.

Maja Pupačić

## Setting up and bringing into service of DGU FME Server

In June 2013, the platform of the State Geodetic Administration, Department for Cadastral System, named „DGU FME Server“ was brought into service. The access to the server was provided by connecting the users by means of web browser to URL location of the server placed in Central Office of SGA. In order to get access, it is necessary to obtain registration data from the Service for maintaining cadastral documents and JIS. DGU FME Server is a platform that offers the procedure for the conversion, transformation, preparation for migration and for the quality control of spatial data, and it is designed primarily as the support to cadastral offices in their daily work. The environment of the platform is very simply, and by means of the service, users can upload and/or take over the data from the server, which does not require the knowledge about the work with FME application and services, or the familiarity with the logic of procedures provided there. We hope that the cadastral offices will recognize the possibilities of DGU FME server in their daily work, and that we will be able to increase the quality of the support offered by the server through mutual cooperation.

Branka Vorel, Elizabeta Babić Sever



List of offered blackboards on DGU FME Server

## Technical specifications for the determination of the point coordinates in the coordinate system of Croatia

Technical specifications for the determination of the coordinates of points in the coordinates system of the Republic of Croatia have been applied again since June 2013. Technical specifications are the basis for a unique procedure in **the determination of coordinates of points** needed in land cadastre, real estate cadastre, utility cadastre, detailed topographic survey, production of geodetic documents and all other georeference presentations, and in **the transformation of coordinates needed by utility cadastre, detailed topographic survey, production of geodetic documents and all other georeference presentations.**

Technical specifications have been changed and supplemented, and they are applied fully (both for the determination of coordinates, as well as for the creation of coordinate list) for the area of the Regional cadastral office Požega, since the Cadastral office in Požega has been keeping and maintaining all graphic data in official plane map projection of the Republic of Croatia defined by the Decision on Determining Official Geodetic Datums and Plane Map Projections of the Republic of Croatia (National Gazette No. 110/2004 and 117/2004).

The technical specifications are fully used also in utility cadastre, detailed topographic survey, the production of geodetic documents and all other georeference presentations. Until the conversion into new geodetic datum and new map projection, the technical specifications are used as the basis for unique procedure in the production of digital records of point coordinates where the coordinates for the maintenance of cadastral plan determined in HDKS are entered into the fields 2 and 3, and the coordinates for the maintenance of cadastral plan when it is maintained by using the method of insertion adjusting at the same time the presentation of surrounding cadastral plots, are entered into the fields 10 and 11.

The list of coordinates in digital form is made in ASCII format. The files are usually textual files, and the name of the file is arbitrary with the extension .txt (e.g. *JBMNTDZ.TXT*), while the data in the file are written in CSV form. CSV form can be controlled due to the FME server installed in the network environment of the State Geodetic Administration, and using the procedures developed by the employees of the Department for Cadastral System, which will be described in more details in a special article dealing with this topic.

Antonio Šustić

## Instruction related to the procedure of producing subdivision and other geodetic documents as technical basis for the maintenance of cadastral documents (DCP)

Cadastral plans that have been kept and maintained through the history only by surveyors and that now contain the data about the numbers of cadastral plots, boundaries and other borders, the usage boundaries of parts of cadastral plots, buildings and other structures, house number and name (streets, shops and other names) being the group presentation of cadastral data, are the basic and the most valuable parts of cadastral documents.

Since the existing legal and sublegal acts, as well as the conversion of cadastral plans into digital form, have provided the possibility to increase the quality of one of the most valuable geodetic product continuously on the basis of the data from geodetic documents, the Instruction have been made for the purpose of mutual work of cadastral offices and the Department for Cadastral System that are related to the procedure of producing subdivision and other geodetic documents.

The mentioned instructions highlight the obligation to record the *real position, form and area* of cadastral plots being the topic of the documents, giving at the same time additional explanations related to the overlapping/insertion methods and to the adjustment of the presentation with the surrounding cadastral plots in the process of producing the documents, as well as to the methods applied in the maintenance of cadastral plans, depending on time, and to the methods and accuracy of cadastral plans. Finally, the application of methods and procedures prescribed in the instructions, it will be possible to enlarge continuously the cadastral plans mutually (by licensed geodetic companies and cadastral offices) that will contain the data reflecting the real situation in the field that has always been one of the basic purposes of cadastral records on the whole.

Antonio Šustić, Davorin Marinović

## Mixed Croatian and Hungarian professional group for renewal, marking and maintenance of state border between the Republic of Croatia and Hungary

The State Geodetic Administration organised the meeting of the Mixed Croatian and Hungarian *professional group* for renewal, marking and maintenance of the state border between the Republic of Croatia and Hungary (MSS) (Kastav, 2. - 4. July 2013). The topics of the meeting, according to the minutes from the 14. regular session of the Mixed Croatian and Hungarian *Commission* for renewal, marking and maintenance of the state border between the Republic of Croatia and Hungary (MK) were the following: revision of border documents, supplements and changes of border documents on the basis of border works performed in 2012, the implementation of the planned field works for the year 2013, and additional marking of state border.

The mixed professional group is continuing with its work on the preparation of new border documents within the scope of the Pilot project that includes the area of state border in the part of the sector "B" (between the border markers B50 and B65). New border documents will have a three-piece structure (Border plan, Border description and List of coordinates) that will be used for official exchange of border documents between the two countries.

The Hungarian delegation has informed the Croatian delegation about the performed filed works in 2013 (from the border marker B437M to C1) and about the expected completion of geodetic works needed in additional marking of the state border. The Croatian delegation has informed the Hungarian delegation about the completion of the public procurement procedures needed to perform the works on renewal, marking and maintenance of border markers and on cleaning the border area in the part of the sector „B“ (from the border marker B283RH to B559). The Croatian party has also

performed field measurements on 40 border markers within the scope of surveillance and control of border markers in 2012 and 2013 (GNSS technology, between the border markers B1RH and B617), which has resulted in significant financial saving for the Republic of Croatia.

The participant of the meeting were Ilija Grgić, PhD (the head of the Croatian part of the Mixed professional group), Varga Norbert, eng. geod. (the head of the Hungarian part of the mixed professional group), Davor Kršulović, grad. eng. geod. (deputy head of the Croatian part of the Mixed professional group), Neu-Perenyi David, eng. geod. (head of the Hungarian part of the Mixed working group), and the experts Franjo Varga, grad. eng. geod. and Busics Imre, grad. eng. geod.

Davor Kršulović



## Project of harmonizing land registry and cadastre records of the cadastral municipality Velika Gorica

The project of harmonizing land registry and cadastre records for the cadastral municipality Velika Gorica started in 2005 and it was financed from the funds of IBRD loan. The contract about providing geodetic and cadastral services for the purpose of producing digital orthophoto plans and of cadastral surveying needed to establish real estate cadastre and to renew the land registry was made with the company Geoprojekt from Zagreb. After the survey had been completed in April 2008, the collected data were exhibited to public and the land registry renewed.

The whole old cadastral municipality Velika Gorica, as well as the parts of the cadastral municipalities Pleso, Velika Mlaka and Novo Čiče with the total area of 10.377.715 m<sup>2</sup> were included into the survey of the new cadastral municipality Velika Gorica. Apart from the mentioned cadastral municipalities, there were also the parts of other neighbouring cadastral municipalities included into the new cadastral municipality Velika Gorica, which resulted in the production and completion of more than 15 geodetic documents related to subdivision, write-off and addition of cadastral plots on the basis of the Decision about the boundary change of cadastral municipalities.

The town Velika Gorica decided in 2012 to change the boundaries of more than 15 settlements. It should be pointed out that after the change of the settlement boundaries had been

registered, the administrative boundary of the Town Velika Gorica was completely harmonized with the newly formed cadastral municipality. In the period from 2005 – 2012, after the documents of the new survey were completely finished, there were about 180 geodetic and subdivision documents received regularly, including also the subdivision documents for the bypass of Velika Gorica that passed through the whole area of surveying. All mentioned documents were adjusted and entered into the documents of new survey. During these 8 years, there were finally 6470 cadastral plots recorded starting with the initial 5490 cadastral plots, and there were also as many land register files established.

There were altogether 7337 cadastral plots exhibited, with 26122 parties participating in the procedure. Out of 715 filed complaints, there additional documents made for 539 of them for the purpose of making necessary changes, and the rest of them were unsubstantial. About 50 complaints were rejected in the administrative procedure, and the parties submitted an appeal for 20 of them that were then rejected in the second instance. One administrative proceeding was instituted, and there were 5 complaints filed related to the land usage. There were 3313 changes registered. In the book of deposited contracts (KPU) of Velika Gorica, there were 630 deposited contracts registered, and in the renewal procedure, they were all connected with 12987 special parts registered for about 100 residential buildings.

A lot of efforts, enthusiasm, communication, patience and work were required in this very demanding job that had to be done along with regular work always present in the cadastre. The greatest merit belongs to the employees of the Department for Real Estate Cadastre of Velika Gorica who have successfully completed the whole job, and I hereby thank them GREATFULLY.  
Jadranka Vilus, Ksenija Kelava

PREGLEDNA KARTA PODJELE NA  
DETALJNE LISTOVE MJERILA 1:1000  
I KONKLUZIJOM  
S PRKAZOM STALNIH GEODETSKIH TOČAKA  
MJEŠLO = 1: 15 000

