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Web Based GIS for Safranbolu Historical City

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Overview

- Aims of This Study
- Test Field and Dataset
- Safranbolu Historical City
- Web Base GIS
- Application of Safranbolu Historical City
- Conclusions

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Aims of This Study

The purpose of this study is established an internet based information system and cooperation system for the documentation of the old part of the city of Safranbolu. For this purpose ;

All data from different sources with different resolutions are brought together in GIS.

All the constructions in Safranbolu will be recorded permanently and architectural features of them will be created database.

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Test Field And Dataset

Because of having lots of historical heritage sites, Turkey takes part an important place among the other countries. **Protection and revitalization are the most important issues of the historical heritage sites.** UNESCO takes historical heritage sites in to world historical heritage list to protect them. **In Turkey, nine historical areas are under protection of UNESCO and one of them is Safranbolu historical city.**

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SAFRANBOLU



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SAFRANBOLU

Safranbolu is located in the inner part of the Western Black Sea Region. **Safranbolu is a typical Ottoman city that has survived to the present day.** Safranbolu is one of the significant examples of a well preserved human habitation in its original surroundings in the world. **Calling Safranbolu as “The Capital of preserved cultures” is quite suitable since the preservation has been accomplished at a city scale.**

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SAFRANBOLU

There are numerous historical places in the city 1300 of which are under protection. This number constitutes an important portion of 50 thousand historical places which are under protection in the country. Those places which are under protection at two different locations turned Safranbolu to a vast museum.

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SAFRANBOLU



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WEB BASED GIS FOR THE HISTORICAL MONUMENTS

Geographic Information Systems (GIS) are now widely accepted as powerful and integrated tools for storing, visualizing, and analyzing spatial data. GIS are usually centralized and need knowledgeable users for effective operation.

With Internet technology, GIS was able to make its concepts more open and mobile to everyone thereby facilitating notions such as democratization of spatial data, open accessibility, and effective dissemination.

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WEB BASED GIS FOR THE HISTORICAL MONUMENTS

Access to spatial data and interactive database applications with querying capabilities over the internet is growing rapidly. Internet has already been one of the important developing platforms of GIS, the function of GIS has been extended by Internet, and furthermore it becomes a kind of new GIS architecture.

WEB GIS



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Harnessing the Web and the power of GIS
Going Far Beyond Mapping and Visualization





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Major advantages of web-based GIS system:

1. GIS client software is not required since GIS software is installed only on the server.
2. The client interface is the web browser. All the user needs for access a web browser such as Netscape or Internet Explorer with a connection to the Internet.
3. The end user does not need special GIS training or skills.



Internet Tabanlı GIS

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- ✓ Web GIS have been widely used for online route selection,
- ✓ city planning,
- ✓ environmental exploration,
- ✓ watersheds management,
- ✓ land-use planning, road/rail construction,
- ✓ business analysis,
- ✓ airport construction,
- ✓ data integration and dissemination.



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In this study, ArcGIS Server is used for Web-GIS applications



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Web Base GIS

Because of forming the Geographic Information System can transferred and serviced, first a server computer that installed Windows Server 2003 operating system was needed. Available databases are transformed with the interface of ArcGIS Server on the internet. With created current services, the new web application is created.

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Creating layers of the Safranbolu historical city

OBJECTID	(OBJECTID)
Entity	(Entity)
Handle	(Handle)
Bina_Ad	(Bina_Ad)
Tesol_No	(Tesol_No)
Adres	(Adres)
Röleve	(Röleve)
Mevki	(Mevki)
B	(B)
Bina_Id	(Bina_Id)
Biz_Ter_It	(Biz_Ter_It)

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The next stage, three query functions was separately created as for the name of building, the number of Registration and the name of street to. In this query types, the user sees what they want and when the selection are made in these lists, the election result is selected on the chart .




Application that starts the publication can be opened in separate browser window. Information System consists of three separate windows and a toolbar.

First of the window being in the map


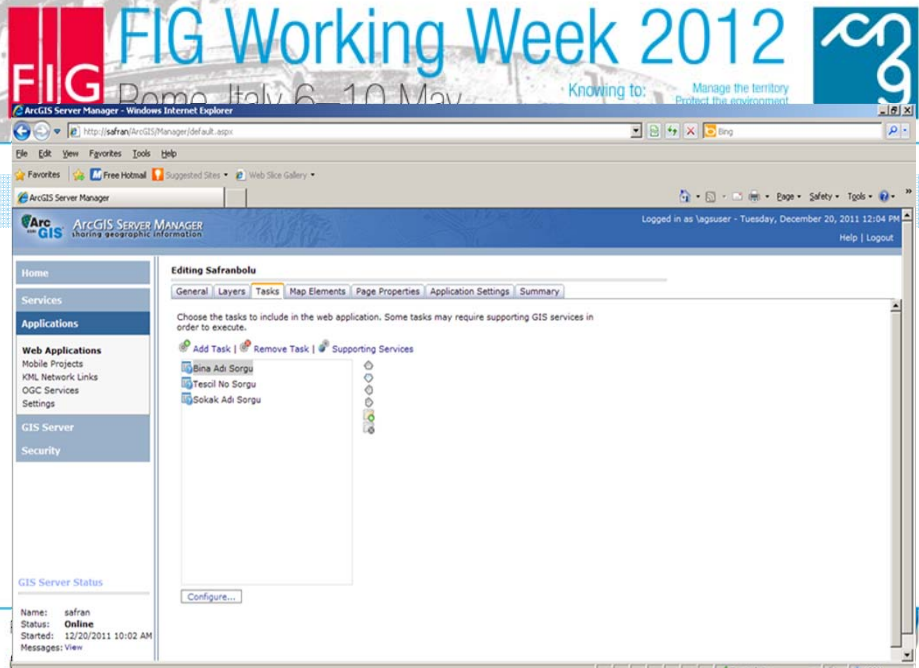
The second of the window that control layers

Finally, the window that display the results of searching.

As for the toolbar, there are the basic tools and functions which we are formed the web application when they are created.



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The screenshot shows the ArcGIS Server Manager web application interface. The browser window title is "ArcGIS Server Manager - Windows Internet Explorer". The address bar shows the URL "http://safran/ArcGIS/Manager/default.aspx". The page content includes a navigation menu on the left with sections like Home, Services, Applications, Web Applications, GIS Server, and Security. The main content area is titled "Editing Safranbolu" and contains a list of tasks: "Bina Adi Sorgu", "Tesol No Sorgu", and "Sokak Adi Sorgu". A "Configure..." button is visible at the bottom of the task list. The status bar at the bottom of the browser window shows the date and time as "Tuesday, December 20, 2011 12:11 PM".

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Safranbolu Tarihi Kenti

Bina Adı Sorgu | Sokak Adı Sorgu | Tescil No Sorgu

Map Contents

- Yapı
 - Tescilli_Yapı
 - Tescilli_Yapı_1_Parcel
 - Tescilli_Yapı_2_Parcel
- Yol
- Parcel




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Safranbolu Tarihi Kenti

Bina Adı Sorgu | Sokak Adı Sorgu | Tescil No Sorgu

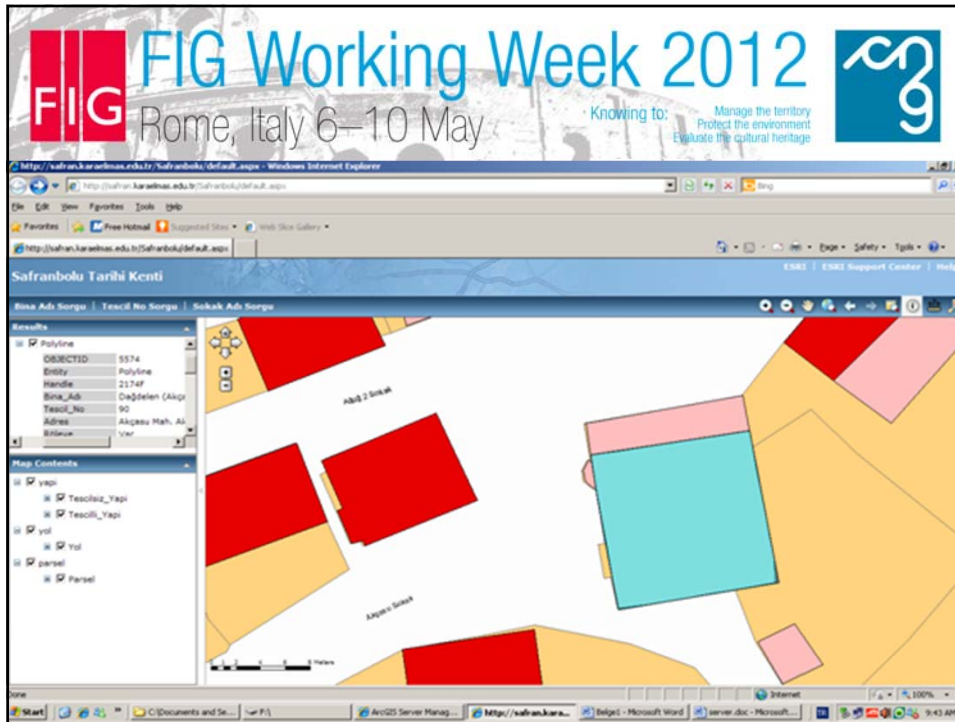
Sokak Adı Sorgu

Results

Map Contents

- Yapı
 - Tescilli_Yapı
 - Tescilli_Yapı
- Yol
- Parcel

Adalet Sokak
 Adaleet Sokak
 Adalayn Sokak
 Akcasu Sokak
 Akkılıoğlu 2 Sokak
 Akkılıoğlu Sokak
 Alan Sokak
 Altan Sokak
 Akpınar Sokak
 Aksele Sokak
 Altın Sokak
 Al Sokak
 Altuğ 2 Sokak
 Altuğ Sokak
 Antep Sokak
 Arap Hacı Sokak
 Arasta Arkası Sokak
 Arasta Sokak
 Aşçı Dikkaldem Sokak
 Aşçı Tabakhane Sokak
 Bağlar Sokak
 Ballıpınar Sokak
 Basırmacı Geçidi
 Baysal Çökmez
 Baysal Sokak
 Beğöz 2 Sokak
 Beğöz Sokak
 Beybağ Sokak
 Bozkurt 2 Sokak
 Bozkurt Sokak
 Cambaz Sokak



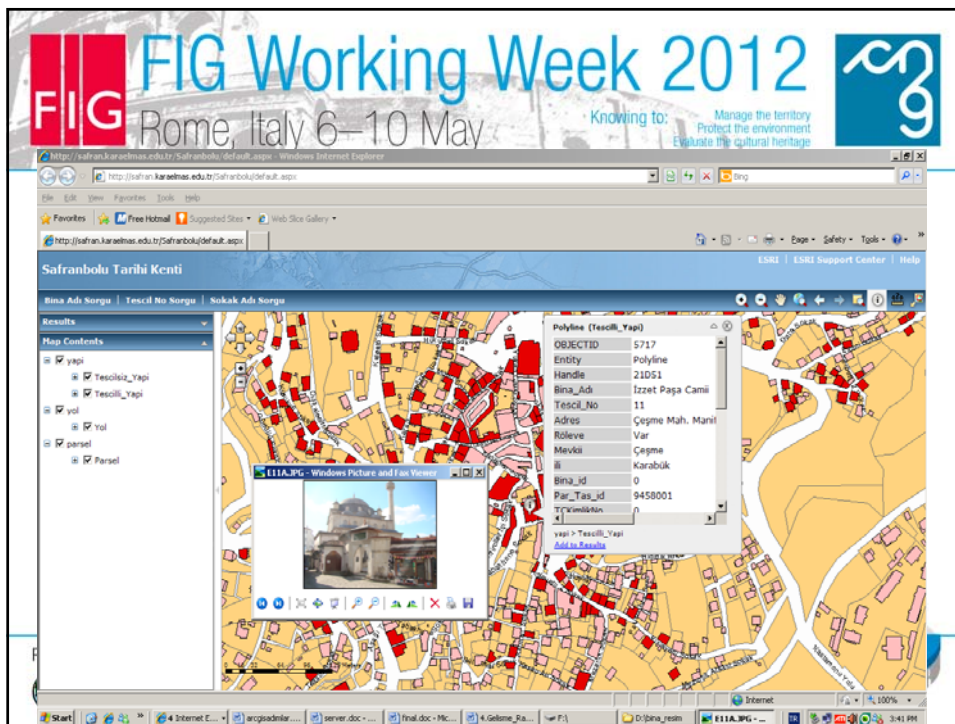


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Polyline (Tescil_No)	
OBJECTID	5940
ENTITY	Polyline
Handle	2304E
Bina_Adı	Paçacıoğlu Konağı
Tescil_No	844
Adres	Bağlar Mah. Kavak
Röleve	Var
Mevki	Bağlar
İl	Karabük
Bina_id	0
Par_Tas_id	3042006
Yıkılmak	1

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Polyline (Tescil_No)	
OBJECTID	6260
ENTITY	Polyline
Handle	236A7
Bina_Adı	Kazdağlıoğlu Camii
Tescil_No	3
Adres	Çeşme Mah. Yülka
Röleve	Var
Mevki	Çeşme
İl	Karabük
Bina_id	0
Par_Tas_id	9480001
Yıkılmak	1

Kazdağlıoğlu Camii

Cami Çeşme mahallesinde ve çarşının girişindedir. Giriş kapısının üzerindeki kitabeden 1779 yılında yapıldığı anlaşılmaktadır. Taç ve tuğladan tek kubbeli olarak yapılmış olan bu yapıya, topraklardan kazağa, oradan da kubbeğe geçilmektedir. Çeşmenin açılması nedeniyle, önündeki küçük avludan ortadan kalktığı bu yapının üç bölümlü cemaat yeri vardır. Ortadaki kubbe, yarıdairesel bir aynalı tonozlarla örtülüdür. Duvar ana kubbe-deki

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CONCLUSIONS

- ✓ Cultural heritage protection and restoration is important issue for the historic monuments.
- ✓ Conservation of cultural heritage is a major issue for modern societies, both from economical and cultural viewpoints.
- ✓ Similar studies oriented for modeling and preserving of the cultural heritage sites should be encouraged and supported by the decision makers. It was seen that, based on the extracted results, development of an information and management system for recording analysis, protection and revitalization of cultural heritage sites of Safranbolu can successfully undertaken and integrated to the GIS environment.

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Trimble



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CONCLUSIONS

This study will be reference for future studies. In addition, by the help of web based GIS which is the fast way to reach the information, the system will be help to increasing the number of tourists reaching the data much more and easy way and increase in the cultural heritage tourism.

<http://safran.karaelmas.edu.tr/safranbolu/>

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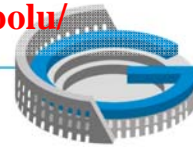


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