

المملكة العربية السعودية  
وزارة الشؤون البلدية والقروية  
إقليم منطقة المدينة المنورة



**The geographic information software document used**

**Consulting engineering services project to study the**

**development of geographical information in the municipality of Me**

2013-06-09 AD

## Controls for the document

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The name	Occupation
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## Project information

Project information			
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The executing agency :		Saudi Engineering Union Company is preacher and scholar	
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the beneficiary		The project is sponsored by the Secretariat	M. Walid Barakat
The representative of the beneficiary		Project manager from the Secretariat	M. Akram Alsarani
Project manager from the implementing agency		Project Manager from the Implementing Entity:	M. Hassan Jabaei

## A general definition of the project

The project aims to develop a strategic plan to develop geographic information systems in the Municipality and to establish an electronic infrastructure for geographic information. The plan is based on defining the future vision of the secretariat in relation to geographic information systems and identifying future initiatives and projects required to achieve the vision and strategic tasks. The plan also defines the roadmap and provides the operational tools for developing geographic information systems in the secretariat for the next three to five years.

The project also aims to prepare a plan to transform the currently used work environment. *MapInfo* In Medina Municipality to the new work environment *Esri* Based on the standards and criteria approved by the Ministry of Municipal and Rural Affairs.

The project includes the following main elements:

- Study and evaluation of the current situation and geographical data available to the Secretariat
- Preparing a strategic plan to develop the geographical information system in the Secretariat
- Issue recommendations for establishing an electronic infrastructure for spatial information ( *SDI* In the Secretariat
- Preparing a brochure of conditions and technical specifications for the project of transferring data and applications of the system *GIS* From the current situation " *MapInfo* To the new work environment *Esri*

## an introduction

### The goal of the report

The aim of this report is to inventory and analyze the GIS programs used in the various departments of the Municipality, in addition to the applications based on them, as a task that falls within the consulting engineering services project to study the development of geographic information in the Municipality of Madinah Region, in order to count the number of programs used and the number of their users.

### Report content

During the process of determining and analyzing the requirements and their priorities, the departments that depend in performing their tasks on the use of GIS programs were identified, in order to develop these departments by improving their performance when converting the currently used environment from MapInfo products to ESRI products.

This report contains a detailed presentation of all the programs used separately, by providing a detailed explanation about the program, the type of version used, the type of license, the number of licenses available in the Municipality of Madinah, applications based on the use of the program, and others.

# Evaluating the geographical information programs used in the departments of the Secretariat

The following is a listing of all the programs used in the various departments of the Secretariat related to their work in the field of geographic information systems:

## MapInfo

### Product Description

MapInfo is a desktop program that is used for spatial analysis in geographic information systems and for map extraction. It was developed and produced by Software Company Pitney Bowes, as it enables its users to visualize, analyze, interpret, understand and extract geographical data in ways that help to understand the spatial relationships between the various geographical layers and their indicators.

Mapinfo, version 31.1 and 31.5, is currently used in various departments of the Secretariat related to their work in the field of geographic information systems.

### Type of license

Desktop licenses are used in departments that use the software.

### Number of licenses used

About one hundred and twenty to one hundred and thirty licenses are used throughout the various departments of the Secretariat related to their work in the field of geographic information systems.

### The number of applications based on the use of the Map Info program

There are nearly twenty applications based on the techniques of Mapinfo.

### Number of users of applications based on the use of the Map Info program

There are approximately one hundred and fifty people who use applications based on the Mapinfo program, in addition to users of the program directly (not via applications, the program is installed on the device).

### **Secretariat departments that use Mapinfo**

There are sixteen departments within the Municipality of Medina that depend in their daily work on using the Map Info program in addition to the applications based on it. Below is a listing of all departments:

- Geographic Information Systems
  
- Department. General administration of
  
- Information Technology. General
  
- Department of Urban Planning. Naming and Numbering Department.
  
- General Administration of Valleys and
  
- Floods. General Department for Studies
  
- and Designs. Studies unit and general plan.
  
- General Department of Gardens and
  
- Beautification. General Department of Environmental Health.
  
- The General Department of Market Affairs.
  
- General Administration of Safety and Social Services.
  
- Land and property management.

- Committee for abandoned buildings and ramshackle.
- The General Administration for the Development of Municipal Investments.
- General Administration for Operation and Maintenance.
- General management of project implementation.

# AutoCAD program

## Product Description

Autocad is a program that helps design buildings, space, roads, etc., with computer assistance. AutoCAD software supports drawing using 2D and 3D shapes. Developed and produced by Autodesk, Inc. AutoCAD is considered the most popular and used program in the world in various fields of engineering design such as water networks, electricity networks, urban planning, land area and others.

Autocad version 2131 is currently used in various departments of the Secretariat related to their work in the field of geographic information systems.

## Type of license

Desktop licenses are used in departments that use the software.

## Number of licenses used

About eleven licenses are used, distributed over the various departments of the Municipality of Medina.

## Number of applications based on the use of AutoCAD software

There are no applications based on the use of AutoCAD software.

## Number of users of applications based on the use of AutoCAD software

There is no.

## **Secretariat departments that use AutoCAD software**

There are eight departments within Medina Municipality that depend in their daily work on the use of AutoCAD software. The following is an account of these departments:

- General Department of Urban Planning.
- Naming and Numbering Department.
- General Administration of Valleys and
- Floods. General Department for Studies
- and Designs. Studies unit and general plan.
- General Department of Gardens and
- Beautification. Land and property management.

## Number of people using software-based applications

the number	App name	Number of people used Applications built on Map Info MapInfo	Number of people used Program-based applications Autocad AutoCAD
. 1	Cheap restoration	7	0
. 2	Planning	37	0
. 3	Space	2	0
. 4	Ownership check	37	0
. 5	Grants	37	0
. 6	Requests	13	0
. 7	Establishing licenses	37	0
. 8	Building violations	2	0
. 9	Naming and numbering	2	0
. 10	Store licenses system	1	0
. 11	System of valleys and torrents	6	0
. 12	Processing system	2	0
. 13	System of stolen and abandoned homes	2	0
. 14	System of encroachments	32	0
. 15	Pilgrims housing system	4	0
. 16	Information systems applications Geography (desktop)	Almost fifty people	0
. 17	Other applications	Applications are being used Other by contractors and service authorities in the region Medina	0

## Consultant evaluation

The importance of the geographic information system (GIS) is reflected in the extent of the information service provided by this system in many important areas, especially in the production of geographical plans and other services that the Medina Municipality has taken care of and adopted its continuous development.

From here the importance of the daily use of geographic information systems in the Municipality of Madinah is evident, and as long as the Municipality uses geographic information systems and applications based on their use and available to all departments of the Municipality, this will facilitate the process of transferring all of the GIS systems available at the Municipality of Madinah from web applications And other environment from MapInfo to the ESRI environment.