

Documenter: A simple Geographical information system.

Ahmed Gomaa
Nova Southeastern University
School of Computer and Information Sciences
Email: ahgomaa@nova.edu

El Sayed Mostafa,
SPG – Egypt
Email: elsayedmostafa@hotmail.com

Abstract:

Documenter is a geographical information system package developed in visualbasic6 and MsAccess2000. It imports and views maps with embedded databases. It includes searching, zooming and printing facilities. Documenter runs under all Windows operating systems. The documenter uses ActiveX technology, as OLE especially the object handler dynamic link library that does not activate the OLE server when the embedded object is used. One of The problems faced while developing the package is the inconsistency of maps starting points opened within the OLE container. Another problem was the interrelated coordinates of a map and how to manage the zooming of the maps within the OLE container putting in consideration the activation of the OLE server. The package solves those problems in a simple and creative manner. The GUI design of DOCUMENTER is collaboration between the system users and the developers. The software is developed using the IEF methodology. DOCUMENTER uses the OLE technology in a creative manner, which helps in minimizing the maps access time, and eliminates the need of the ole server while running the system a fact that decreases tremendously the licensing expenses.

Figure1 gives a general overview of the system.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.
OOPSLA 2000 Companion Minneapolis, Minnesota
(c) Copyright ACM 2000 1-58113-307-3/00/10...\$5.00

Documenter

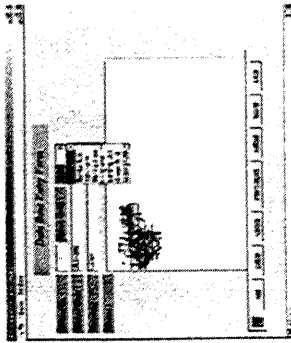
Ahmed Gomaa, Nova Southeastern University

El Sayed Mostafa, SPG-Egypt

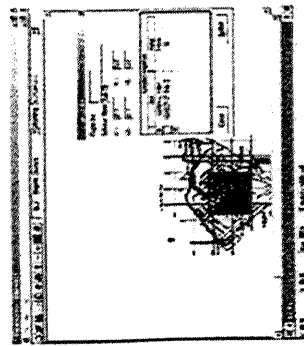
- DOCUMENTER is a user-friendly system that imports and views maps along with there embedded databases

- DOCUMENTER is developed with Visual Basic6 and MSAcess2000

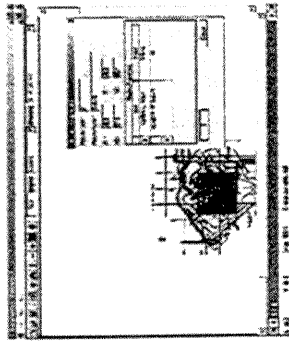
Entering The Object



Enter data in the map

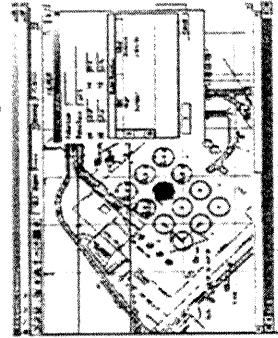


Viewing Data



To insert data within the maps, mouse driven procedures are called along with a developed function (*draw_box*), that highlight the selected area. The selected area coordinates are sent to the database, and the user enters the required data

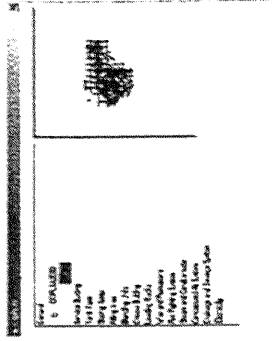
Zooming



The zooming is maintained by the two OLE's: one visible with the zooming rate, and the other is invisible with the true size.

- If a certain part includes inner parts, the developed function (*draw_box1*) is called to handle the interrelated coordinates.

Explorer



- The explorer form uses the *treeview ActiveX*, which needs a node for each item in the list. Each node presents an item in the list

View Through Explorer

