University of Baghdad	
Department	Surveying Engineering
Full Name	Luma Layth Abedulridha
Thesis Title	GOOGLE MAP DATA ASSESSMENT FOR SOME ENGINEERING APPLICATIONS
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Abstract	Today, there are large amounts of geospatial data available on the web such as Google Map (GM), OpenStreetMap (OSM), the Flickr service, Wikimapia and others. All of these services called open source data. Geospatial data from different source often has variable accuracy levels due to different data collection methods; therefore data accuracy may not meet the user requirement in varying organization. In this research GM service has been chosen to assess its quality. The GM service provides data based on the volunteers through edit or add features for Google Map Maker (GMM). This study aims to develop a tool to evaluate the accuracy of GM data through comparing it with formal data such as Mayoralty of Baghdad (MB). This tool developed by Visual Basic language, and applied on two different study areas in Iraq (Al-Karada and Al- Kadhumiyah), in order to verify if the GM data has the same accuracy into both study areas. This program designed to evaluate two types of geospatial data quality. First, assessing positional accuracy by adopting NSSDA model with threshold value to accept or reject the results. Second, analyzing completeness (omission and commission) for roads network based on the percentage of the length. In general, this program consists of three parts to assess positional accuracy and completeness: input data, analysis and conclusion, output data. For assessing positional accuracy, the developed program requires loading data, entering the threshold value, confidence interval, and significant of level (p-value) to achieve statistical analysis (t-test). The findings found that the NSSDA accuracy of case study one was 15.48 m, while it was 8.71 m for case study two. This indicated that the accuracy of the GM data is different from region to region. The analysis was also involved two-sample t-test to compare the accuracy of two study areas. The findings showed that the difference on mean was 6.16 m which indicated that there is a difference in GM accuracy in different sites. In order to examine completeness quality, this program required loading data, than appearing the ratio of the percentage of completeness roads network, and statistical diagram to represent the output. The results found that the main roads network of the GM of case study one have commission when compared it with formal roads network (MB), while the street roads network of the GM data have omission. Whereas the main and street roads network in case study two have omission of roads network. It was concluded that the GM data is inappropriate for engineering applications that require high accuracy, but may be used at small area and larger scale, and some engineering applications such as preliminary route location, which is usually determined before designing process, may need positional accuracy ranging between 5-50 m. It also used to tourism and reconnaissance….etc.