ROAD MAINTENANCE FOR INVENTORY MANAGEMENT INFORMATION SYSTEM IN SEPANG, SELANGOR USING GEOGRAPHICAL INFORMATION SYSTEM (G.I.S)

Abstract:

GIS (Geographical Information System), which is a type of computerized data management, is the most advances technologies given excellence opportunity for any application of spatial analysis. Jabatan Kerja Raya (JKR) as the major custodian in Malaysia, is responsible for managing the operation and maintenance most of the road inventory. Nowadays, majority of JKR still use the conventional method in storing and managing system for road inventory maintenance information. This manual system and isolated data storage will delay the retrieve process. This study aims to apply GIS in developing database for road inventory management system especially in Main state Road in Sepang, Selangor. This database as known as Road Inventory Management was develop ArcGIS 10.1 as GIS application software. Through Road Inventory Management, an efficient database was introduced to JKR Sepang as an alternative storage and management system for road inventory management. We also proposed this alternative to JKR Merlimau to know the effective of ArcGIS in road inventory management.

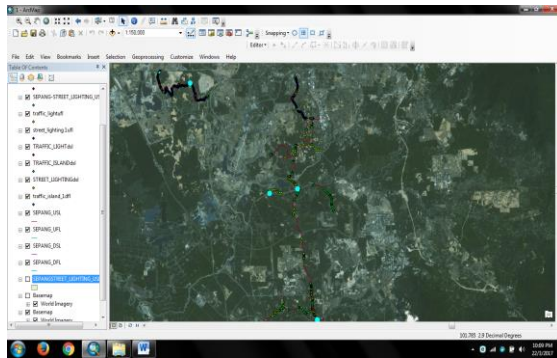**Keyword**: GIS, road inventory

IP no: nil

Finding:
i.   The display shows information base map shaped spatial data such as position location, maintenance, border county region, the state of the road map and the etc.
ii. Attribute data is data that describes some of the information and the characteristics of the geographical entity delegated**.**
iii. Data input for buffer also may comprise either a point, line or polygon. As the above example, if the location of street lighting in the data in the form of a point, the output will be produced is a polygon around 500m from the point of street light.
iv. Query process is actually a process that you will do when you want to find a piece of information in any database system, not necessarily in the application GIS. For the example like the diagram below. Is for the purpose of issuing more detailed information through the attributes table. Example diagram below can produce images of damaged traffic lights
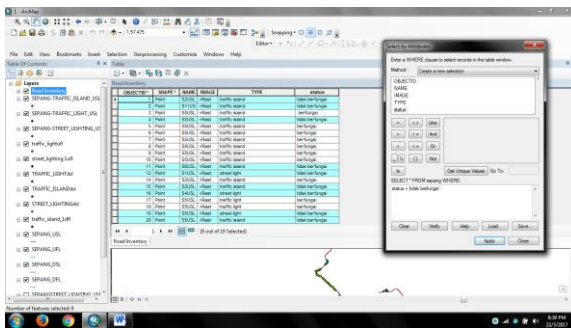
Suggestion for future work

Based on the weaknesses and shortcomings of this system, some improvements and improvements need to be taken into account to ensure the system is always at a high level. The failure of the system to detect any damage to the inventory automatically be improved through the addition of any because the sensors in the road inventory. Through the addition of each sensor in the road inventory simplify and accelerate the repair carried out by the parties involved.

In addition, the lack of disclosure of this system should be emphasized. *Jabatan Kerja Raya* (JKR) should be exposed to this system to facilitate maintenance work. Indirectly, can reduce costs and save time for maintenance tasks. Furthermore, the scope of the area to be expanded as proposed by the JKR. They suggested that the entire area using this system to facilitate the work done.
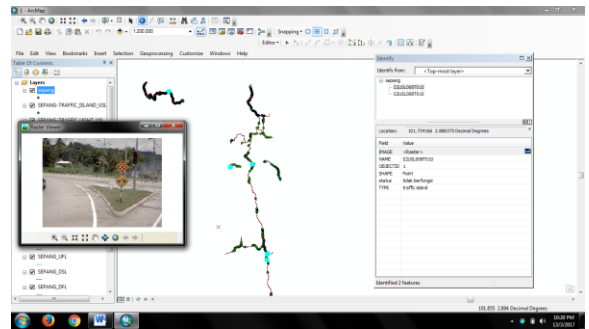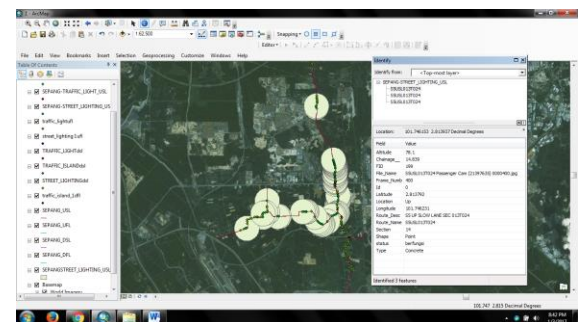
Picture related to project	
Base map Display for road Sepang	Display to produce the image in the attribute table
Shows the results of the query data	Display Buffer identify

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