

## ***Abstract***

*Keyhole Markup Language(KML), Geographically Encoded Object for RSS Feeds(GeoRSS) and Javascript Object Notation(JSON) are Geospatial Data that already have meet standardization and specification by Open Geographic Consortium(OGC). Geospatial data data is use to code geographic image likes point, line, polygon and raster. Web Map Services(WMS) is a web application that use for encode geospatial data to geographic image from rendering satellite that form 2D, 3D and raster map. Google Maps is opensource WMS that writer use for research of the final report.*

*The use of KML, GeoRSS and JSON as geospatial data for panorama mapping case will produce variation of structure of data and sum of record data. So that writer analyzed whether there are affect of performance to WMS Application.*

*The result of examination from type of data point of view have discovered that to present point, JSON is the most lightweight geospatial data than KML and GeoRSS. It is also discovered that to present line and polygon KML is the most lightweight than JSON and GeoRSS.*

*The result of examination from the performance of web point of view have discovered that structure of data and sum of data record linearly equal with data transfer time, render time and parsing time. It is not influenced for server execute time. Memory usage parameter is linearly equal with structure of data and sum of data, for all of point, line and polygon, JSON have the smallest value of memory usage than KML and GeoRSS.*

*Key word: KML, GeoRSS, JSON, WMS, Web Performance.*