LiDAR data exploration boosted by a column-store.

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Currently large data sets, such as country wise LiDAR scans, are being collected and combined with large collections of semantically rich objects to form a new source of knowledge for modern risk management systems. To integrate different data sets with spatial data, and to have efficient and flexible data exploration a Spatial Data Management System (SDBMS) is advised. However, current solutions are not capable of handling efficiently large LiDAR data sets due to the high cost of converting, loading, indexing and compressing Point Cloud data [1].

In this talk we present an efficient data management layer for geo-spatial data analysis with special emphasis on LiDAR data. The advantage of this approach is that, unlike previous solutions, it stores the raw data sets, and transforms, combines and processes them only when needed, thereby vastly improving flexibility and performance.

References

[1] P. van Oosterom, O. Martinez-Rubi, and et al. Massive point cloud data management: design, implementation and execution of a point cloud benchmark. *Computer Graphics*, 2015.