A Survey of R-Trees

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March 7, 2013

To solve the problem of performing efficient searchs on spatial data, Guttman proposed the R-tree, which inspired a variety of different variations analagous to the family of B-trees. In Section 2.1 we outline the original R-tree paper, and in Section 2.2 we examine the variants and draw appropriate comparisons.

In 1984, Guttman first proposed the idea of using minimum bounding rectangles (MBR) as a way to restrict the search space during a lookup for spatial data.

Much like its cousin, the B-tree, the R-tree has a few main variants such as the R^+-tree and the R^*-tree, which we discuss in the following sections.