Ray tracing acceleration methods are usually applied to scenes defined by triangle meshes.These scenes contain a large number of triangles. In contrast, CSG scenes contain orders of magnitude less more complex primitives primitives. In this thesis we will present the Operation KD-tree. This acceleration method applies the KD-tree --- modern acceleration method developed for triangle meshes --- directly to the CSG scene. This is done on the premise, that the huge reduction in primitive count will yield enhanced performance, when rendering a scene using CSG instead of triangle meshes.