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Developing a Rational Database Management System (RDBMS) Supporting Product Life Cycle Appications

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Abstract : This paper presents the implementation details of a Relational Database Management System of a STEP-technology product model repository. It is able support the implementation of any EXPRESS language schema, although it has been primarily implemented to support mechanical product life cycle applications. This database support the input of STEP part 21 file format from CAD in geometrical and topological data format and support a range of queries for mechanical product life cycle applications. This proposed relational database management system uses entity-to-table method (R1) rather than type-to-table method (R4). The two mapping methods have their own strengths and drawbacks.

Keywords : RDBMS, CAD, ISO 10303, part-21 file
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