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Abstract: It is proposed a new approach based on a methodology, assisted by a tool, to create new products in the automobile industry based on previous defined processes and experiences inspired on a set of best practices or principles: it is based on high-level models or specifications; it is component-based architecture centric; it is based on generative programming techniques. This approach follows in essence the MDA (Model Driven Architecture) philosophy with some specific characteristics. We propose a repository that keeps related information, such as models, applications, design information, generated artifacts and even information concerning the development process itself (e.g., generation steps, tests and integration milestones). Generically, this methodology receives the users' requirements to a new product (e.g., functional, non-functional, product specification) as its main inputs and produces a set of artifacts (e.g., design parts, process validation output) as its main output, that will be integrated in the engineer design tool (e.g. CAD system) facilitating the work.

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