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The traditional approach to the development of business information systems leads to a high degree of dependency and mixture between technical and domain specific source code, for example SQL statements and technical CORBA® code together with algorithms that compute the value of an invoice.

The OMG Model Driven Architecture[™] provides project teams with a methodology to accomplish the necessary separation between the technical architecture and domain specific parts. Rösch Consulting has developed a so-called Software Robot, a UML[™] source code generator that supports this methodology. The robot maps a platform-independent analysis model (PIM) to platform specific models (PSM) and source code using model transformations.

This means you can create a model that is purely motivated by the domain logic and serves as a code generation source at the same time. The robot also generates technical parts like database access layer, distribution layer and user interface. Performance issues are tackled by design profiles that are added to the UML analysis model. These switches control performance behavior without altering the external behavior of the generated code. Rösch Consulting has developed this technology in several projects for Java, C++ and COBOL. One of the largest involves over 100 domain experts and software developers.