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              Contact Thomas Weise at tweise@gmx.de or http://www.it-weise.de/.},
abstract    = {Genetic programming is known to provide good solutions for many problems
              like the evolution of network protocols and distributed algorithms. In
              such cases it is most likely a hardware module of a design framework that
              assists the engineer to optimize specific aspects of the system to be
              developed. It provides its results in a fixed format through an internal
              interface. In this paper we show how the utility of genetic programming
              can be increased remarkably by isolating it as a component and integrating
              it into the model-driven software development process. Our genetic
              programming framework produces XML-encoded UML models that can easily be
              loaded into widely available modeling tools which in turn possess code
              generation as well as additional analysis and test capabilities. We use
              the evolution of a distributed election algorithm as an example to
              illustrate how genetic programming can be combined with model-driven
              development. This example clearly illustrates the advantages of our
              approach - the generation of source code in different programming
              languages.},
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              * Genetic Programming and MDD\
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              * Evolving Distributed Algorithms\
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              - Modeling the Primitive Operations\
              * Transforming the UML Models\
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