iQgen – The Model Driven Software Generator

GENERATOR

Turn Architectural Rules Into Templates

iQgen allows organizations that develop enterprise applications to focus on the essential: the business domain model and the implementation of functional require-ments. Architectural rules are specified as templates. iQgen applies the templates to a model and thus transforms it into implementation artifacts, preserving exi-sting information.

Support for OMG's Model Driven Architecture

iQgen supports development according to OMG's Model Driven Architecture (MDA) initia-tive. You can design your Platform Indepen-dent Model (PIM) using standard CASE tools and use iQgen to transform it into a Platform Specific Model (PSM) implementation.

By factoring out architectural rules into tem-plates, changes in technology or infrastruc-ture components can easily be incorporated – and in most cases, this can be done without touching existing models or implementation code.

Automate Repetitive Tasks and Increase Conformance to Architectural Guidelines

Usually, a system's technical software archi-tecture is defined in prose, leading to huge documents that need to be read, understood and applied by every developer. Examples include how to persist objects, how to imple-ment relations, how to manage life cycle, etc. This leads to a huge amount of effort required to implement functionality not only correct, but also architecture conformant. iQgen can automate most of the tasks and allows the developer to focus on the implementation of functional requirements.

iQgen is not exclusively a manager's or analyst's tool. Because the templates are spe-cified using Java ServerPages (JSP) syntax, they can be edited along-side with Java and other implementation code, enabling develo-pers to use meta-programming for repetitive tasks.
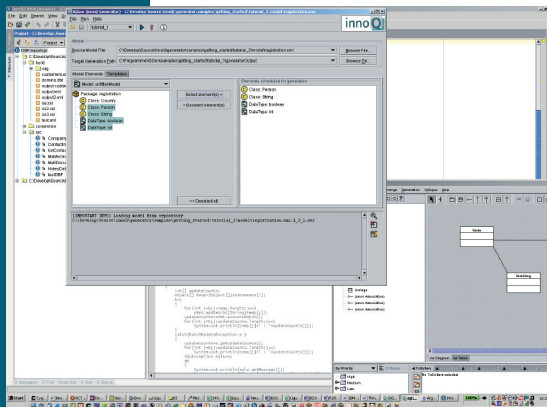
Key Features:

》》》 Decouples business model, functional implementation and software architecture

》》》 Supports development according to OMG's MDA

》》》 Use of standards like XMI and JSP ensures compatibility and reduces training effort

》》》 Template-based approach allows generation of software artifacts for technologies like CORBA, J2EE and .NET

Please visit http://iqgen.innoq.org

innoQ

iQgen – Facts and Data Sheet

GENERATOR

Built from knowledge gained in large-scale, mission-critical development efforts

While doing consulting for major companies, innoQ has built and used several different software generators. iQgen is the tool we would have liked to have: Focusing on what is really needed, easy to integrate into a standards-based development process, and, most importantly, not taking away decisions from the project's staff by assuming to know the right architecture that works everywhere.

iQgen Features:

〉〉〉 Able to generate every textual software artefact, including, but not limited to, Java, C++, C and C# source code, XML files (e.g. deployment descriptors), configuration information, make or Ant build scripts, test drivers and test data

〉〉〉 XMI import interface to support major CASE tools like Rational Rose, MID Innovator, Microtool ObjectiF, Together, and ArgoUML

〉〉〉 JSP template syntax with full support for JSP1.1, including tag libraries to build custom tags for use during template development

〉〉〉 On-the-fly compilation of JSPs to Java byte code for increased performance

〉〉〉 Command line, Jakarta Ant and GUI interface
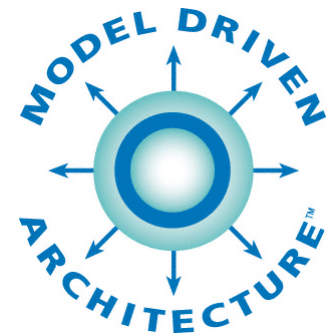
Implementation Details:

〉〉〉 Written in 100% pure Java

〉〉〉 Available on Windows NT/2000/XP, Linux, Mac OS X

〉〉〉 Supports XMI 1.0 and 1.1

〉〉〉 Small footprint (requires just 6 MB disk space)

Contact Information:

For more information please contact:

innoQ

innoQ Deutschland GmbH
Harkortstr. 21–23
D–40880 Ratingen
Germany
Phone: +49 2102 77162-100

innoQ GmbH
Oberdorfstr. 1
CH–8305 Dietlikon
Switzerland
Phone: +41 1 888 37 27

Please visit http://iqgen.innoq.org