

## GuardianIQ 1.0: The Business Rule Approach to DQ

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The following is a description of the features included in version 1.0 of the GuardianIQ Information Compliance Rule Environment and Editor.

### Overview

GuardianIQ is a development environment for defining data quality and business rule logic at a high level with automated application generation capabilities. The user specifies data sets for which rules drawn from a knowledge-oriented set of rule classes are to be applied. GuardianIQ will automatically generate application code (currently SQL queries or Java class objects) for data validation

GuardianIQ allows the abstraction of high-level business logic as a way to archive and manage this logic as strategic enterprise knowledge. Because of GuardianIQ's multiple-target code generation capabilities, a single rule set definition can be used for multiple data validation applications, all of which incorporate and apply *the same synchronized set of rules*.

### Supported Platforms

The GuardianIQ Rules Editor is developed in Java and is designed to run on any platform that supports Java. So far we have tested the implementation on these platforms:

- Windows 98/NT/2000
- Solaris
- Linux

The GuardianIQ Runtime Class Library requires having the Java 1.3 (or higher) SDK and Java Runtime Environment installed.

### Data Specification

- User-defined specification of data sets, data tables, and attributes
- Attribution of data sets as either database-sourced or flat-file sourced
- Automatic extraction of data set metadata from databases

### Reference Object Specification

- Enumerated Domains – Consisting of a user-defined list of domain values
- Table-based Domains – Domains derived from existing data tables (with an optional defined constraint)

- Synthesized Domains – Domains described as conforming to a specified parameterized expression

### Rule Specification

#### Direct Database Support:

- Record-level Not-Null rules
- Record-level Domain Membership and Non-Membership rules
- Record and Cross-Table Completeness Rules
- Record and Cross-Table Exemption Rules
- Record and Cross-Table Consistency Rules
- Table-level Uniqueness Rules
- Table-level Functional Dependency Rules

#### Generated Java Code Support:

- Record-level Not-Null rules
- Record-level Domain Membership and Non-Membership rules
- Record and Cross-Table Completeness Rules
- Record and Cross-Table Exemption Rules
- Record and Cross-Table Consistency Rules
- Table-level Uniqueness Rules
- Table-level Functional Dependency Rules

### Reporting

- Interactive Rule Testing from the console
- Specification of desired selected columns for display
- Summarization features for percentage-based rule compliance reporting

### Internal Functions

- Substring, Index, IsAlpha, IsNumeric, Length, etc.

### Code Generation

- Direct SQL queries from the interactive testing facility
- Generated SQL for all defined rules
- Generated Java code for inline/in-process validation
- API Hooks for User-defined Java functions

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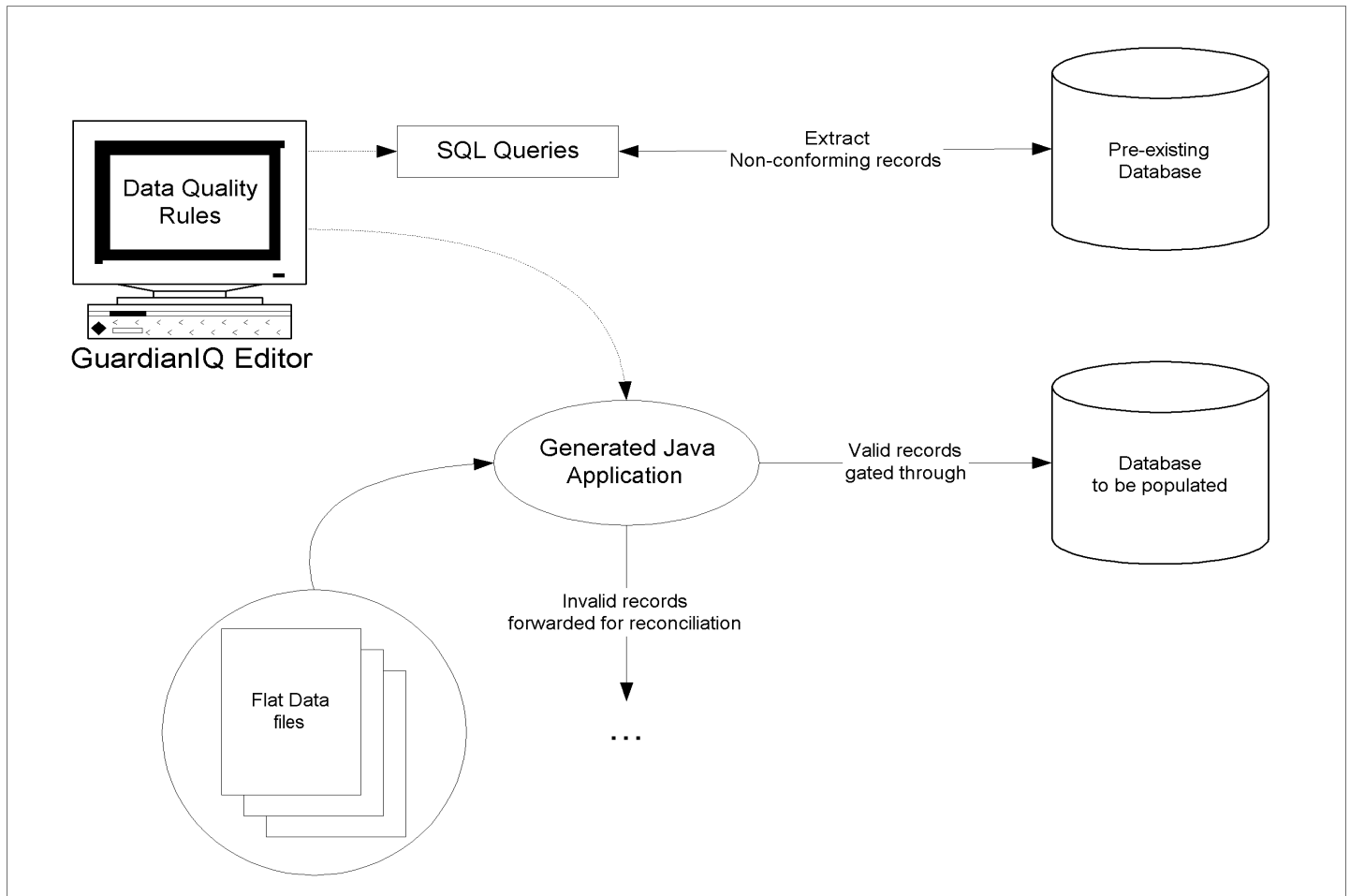
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## Rule Set Archiving

Rules can either be stored in a text format or can be archived in a database. We provide the mechanism for importing and exporting rule sets and loading and storing those rule sets to the rules database.

## Additional Customization

We have designed our software in a highly extensible way, which allows us to work with our clients to provide individualized capabilities customized to particular requirements. As part of our services offering we consult on defining requirements and customizing to that specification.



## For More Information

For technical questions and pricing quotes, contact:  
David Loshin (loshin@knowledge-integrity.com)  
Knowledge Integrity Inc.  
1-866-BIZRULE (1-866-249-7853)

**GuardianIQ**

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1-866 BIZRULE