

GTONE

Source Code Quality Inspection Solution

CodePrism

Bring High-Quality Application and Development Productivity

- Ensuring application quality with automated code inspection
- Significantly reducing development and QA costs
- Improving maintenance efficiency by enforcing development standard

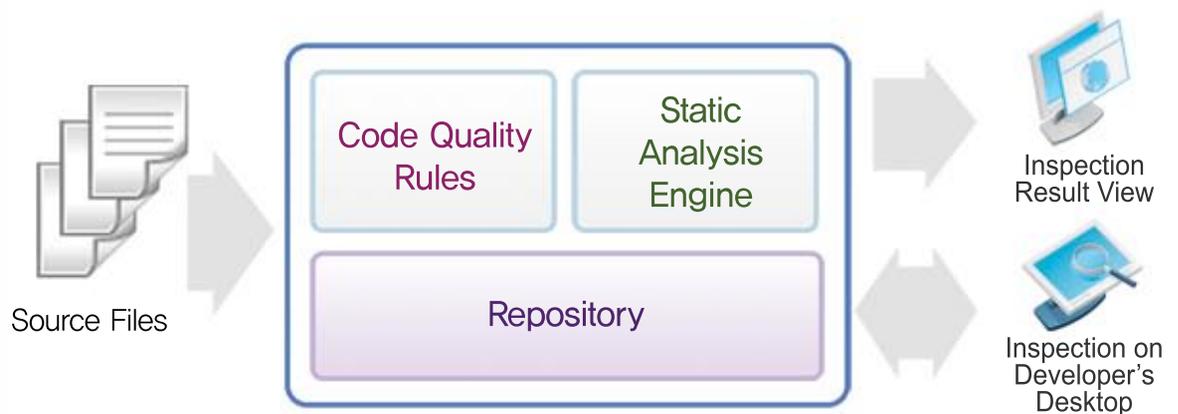
The advanced static analysis solution
to detect and locate
software defects
at the early of development lifecycle

GTONE
Governance Technology

Overview

GTONE's CodePrism® enables organizations to **improve application quality** and maintenance efficiency by delivering automated code inspection with best coding practices.

Using advanced static analysis technology, it analyzes source files to automatically **detect software defects** without running programs. It supports **two-track code inspection**; client and server side inspection. At the development stage, developers can check their own source codes on the development PC. At the test or cut-over stage, QA or managers can check all source codes before moving forward to the next stage. The result from server side inspection is stored to the central repository, allowing application team can share it for improving application quality.



The Challenges and Solution

Increasing application's **complexity** and **size** result in **poor quality** and **compliance challenges**. It most likely lead to **high maintenance cost** and **business risk**.

Finding software defects at the initial development stage will reduce huge amount of defect-fixing cost. However, checking source codes of software with **manual way** relies on **developers' experiences** and needs **large amount of times** and **costs**

Therefore, organizations need an efficient method to find defects and ensure software quality. Applying an **automated code inspection tool** is one of options to **effectively fix software defects** in the **early stage of development lifecycle**.

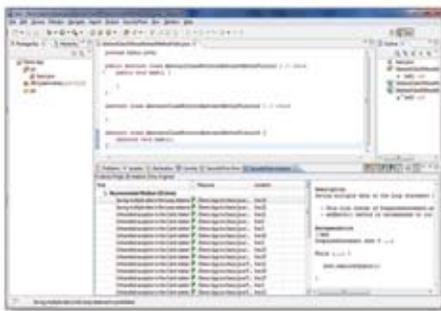
CodePrism® automatically checks your source code based on pre-defined rules about quality and development standards. Eventually, it brings you **high quality application**, **compliance** and **cost cut-down**.



Key Features

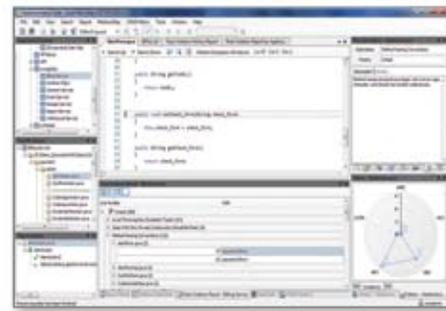
Detecting run-time error-prone source codes

- With semantic analysis algorithm, it detects source codes which would result in run-time error.
- Resource leaks, null pointer dereference, dangling pointer dereference, division by zero, return stack address and more.



Enforcing development standards

- To improve maintenance efficiency, it checks compliance of your development standards.
- Comment standard, naming convention, architectural standard, hard code, and limitation of size/length etc.



Detecting bad performance coding patterns

- Applying industry recommended best practices, it finds coding patterns which can lead to bad performance of program.
- Function call restrictions, dangerous and/or bad coding practices and more.



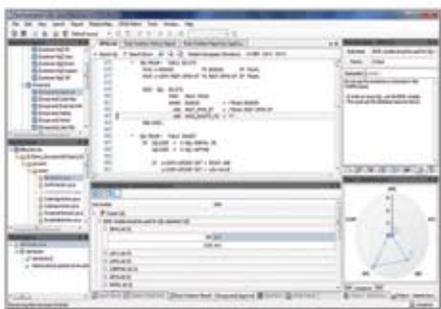
Easy management of rules

- It allows you to create new rules or modify existing rules based on regular expression.
- Its centralized rule management supports automatic rule update for developers.



Detecting bad SQL usages

- It checks bad-performance patterns and standard violations in SQL statement.
- Dynamic SQL is supported in the server side analysis.



Reporting and guideline

- It generates detailed report about detected software defects with line number, violated rule's description and sample code etc.



Benefits

Reduce error-fixing costs

IT organizations will save huge amount of time and costs by detecting and fixing software defects in the early stage of development lifecycle.

Improve maintenance efficiency

By enforcing developer's coding standards compliance at the development stage, IT organizations can significantly improve maintenance efficiency.

Enhance productivity

According to Software Engineering Institute, skilled developer just can check 1,000 code lines per day. CodePrism® can save your quality assurance time and effort.

Achieve application compliance

CodePrism® is able to detect hard-coded keywords prohibited by internal or external regulations, IT organizations will get safe way to comply with regulations in business applications.



Supported Technologies

- COBOL, ANSI C, JAVA, JSP, .NET(C#, VB)
- ANSI SQL
- Eclipse plug-in

Seamless Integration with GTONE Product Line

GTONE also provides other application governance solutions; CodePrism, SecurityPrism and AQPrism. The four solutions can be tightly integrated as a complete package, GTONE AppGovernance Suite. CodePrism is a source code quality inspection solution. SecurityPrism is a security vulnerability inspection solution. AQPrism is an application portfolio management solution.



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