

## **EXPLORE**

#### Visualize and Understand

SonarJ allows you to visualize and analyze the structure of any software system written in Java within minutes. It helps you to uncover unwanted and cyclic dependencies on all levels of your architecture. Our unique cycle visualization and breakup tool automatically computes the necessary changes to improve the structure of your system with minimal effort.

### DESIGN

#### **Define and Enforce Architecture**

With SonarJ, you can formally define the intended logical architecture of your system and map it to your code. Once defined, our Eclipse plugin checks every code change for rule conformance. Violating code lines will be marked with error markers so that developers are able to fix rule violations before they commit their changes to the version control system. SonarJ also integrates with ANT and Maven so that architecture rules can also be enforced in your build process.

### **IMPROVE**

### **Use Virtual Refactorings**

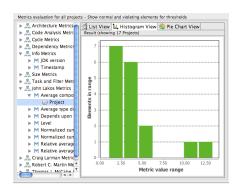
SonarJ allows you to simulate complex refactorings on your code without actually touching your code. Once you are satisfied with the results you can delegate the execution of most refactorings to Eclipse. SonarJ supports a simple team workflow concept. You can delegate the execution of refactorings and other code improvement tasks to other team members and track their progress.

# **GET RESULTS**

#### **Experience Gains in Productivity and Technical Quality**

Without architecture and quality management your developers typically spend about 30 to 60% of their time with figuring out problems that could be easily avoided by integrating architecte and quality checks into the development process. More than 200 companies around the globe are already using SonarJ. They report significant gains in development productivity, technical quality and code maintainability.

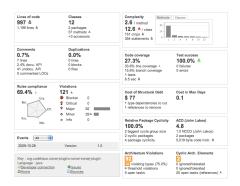
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## **M**EASURE

### **Use Metrics to Control Quality**

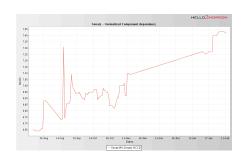
Software metrics can be a big help in defining and enforcing quantitative goals for the technical quality of your software. SonarJ calculates several dozen metrics on your project. For example, the metric ACD (Average Component Dependency) would tell you, on average, how many Java files would be affected by a change in your system. By limiting metrics with threshold values you get an early warning if complexity gets out of control.



### INTEGRATE

### Integrate SonarJ with Other QM Tools

SonarJ integrates nicely with other quality management tools. We provide a plugin for the QM umbrella tool Sonar (sonar.codehaus.org). Sonar integrates CheckStyle, FindBugs, PMD, Cobertura and other tools to support a broad approach to quality management. We also provide an out of the box integration for Jira™ and CodeBeamer™. Other issue tracking systems can be integrated with very little effort.



# BE IN CONTROL

### Stop and Reverse Structural Erosion

By using SonarJ to define architecture and quality rules any violation can be discovered and fixed at the earliest possible moment. This will allow you to limit the growth of complexity, boost your development productivity and significantly improve the maintainability, comprehensibility and testability of your code. By integrating SonarJ into your build you will get up-to-date quality measurements and valuable trend information so that you can react early if problems should arise.

#### WHAT OUR USERS ARE SAYING ABOUT SONARJ:

I was amazed to see how quick and easy we were able to adopt SonarJ for managing the architecture and technical quality of the Spring Framework family. For the Spring Web Flow project SonarJ helped us to almost cut in half the internal coupling of the code base with very little additional effort. Now we are using SonarJ in our daily development work and it helps us to keep the architecture and quality of Spring on the high level expected by our global user base.

Jürgen Höller - VP & Distinguished Engineer - Springsource - USA

SonarJ was the key to the success of our most recent project. Not only did it help us create a clear overall architectural blueprint of the application, it also helped us identify dependencies between modules and reduce coupling. This allowed us to simplify the code and add new features while still retaining the overall blueprint. I would highly recommend the use of SonarJ, and we are going to make it a standard tool for all our new applications.

Grant Weyburne - Senior Software Developer - University in Michigan, USA

Our process model requires quality assurance activities in various phases, including code reviews during implementation and maintenance. In combination with other products, SonarJ provides us with all the data and metrics necessary for timely escalation decisions. Using SonarJ for architecture management prevented uncontrolled growth and clutter in new projects, further deterioration of existing projects and enabled the assessment of third party code. A definite recommendation!

Thomas Baldauf - Senior Software Architect - Environment Agency Austria

SonarJ allows us to manage a large number of developers with a small team of architects. Since we started using SonarJ in 2007, the technical quality of our award winning "easyCredit" web application and our development productivity have improved steadily. SonarJ has become invaluable to our ongoing architecture management process.

Andreas Karalus - Head of Software Architecture Department at TeamBank - Germany