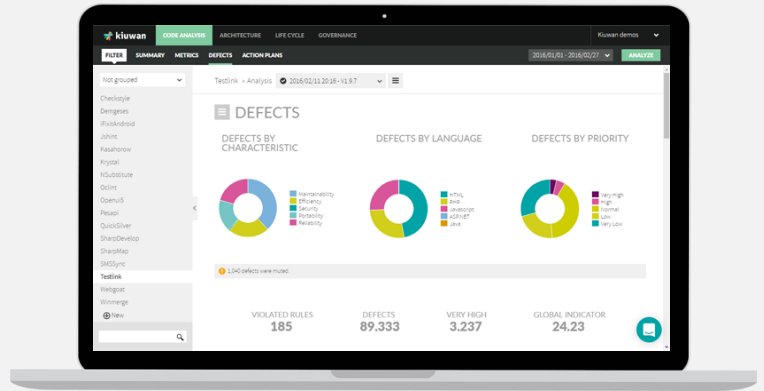


# CODE ANALYSIS (QA)

Kiuwan Code Analysis enforces a rigorous approach in the **detection of defects in your code**, smoothly integrating within continuous development processes.

Identify code defects and manage your remediation efforts with blazingly fast speed in a collaborative and unlocalized environment.



“With just a glance, you can easily understand if your project is at risk or not”

## FOR ALL MAJOR LANGUAGES



We are continuously adding new coding languages & environments to the Kiuwan engine. Stay tuned for more to come.

## KIUWAN STANDS OUT



No configuration needed



Software models can be fully managed to truly reflect your applications characteristics



Request a free demo or quote and discover how Kiuwan can help you fix your software and reduce your time to market

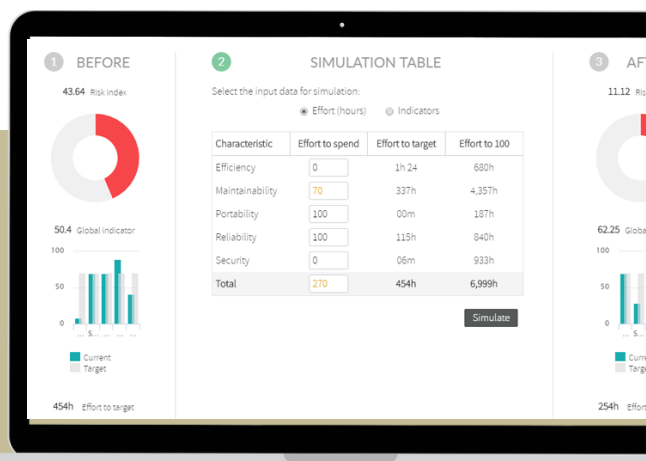
## MAKING IT EASIER... AND MORE SECURE

- No installation.
- No configuration.
- Collaborative platform between development teams and software vendors. Create all the users you need.
- Reduces production incidents and errors detected in early tests performing validations of source code.
- It reduces development time making your development teams and suppliers comply with market standards.
- The code never leaves your infrastructure (behind the firewall) using Kiuwan local analyzer.
- Generation of indicators to make comparisons and measure developments and trends.

## BEYOND CODE ANALYSIS

- **Technical debt reduction.** Manages the effort needed to correct the major flaws found.
- Visual configurator to create **models** to select the rules and properties of the analyzer.
- Make **automatic or manual action plans** and perform an automated monitoring of its implementation.
- Analyze continuously with **Jenkins** every time you build your application.
- Complete **history** of your analyses.
- Differential **reports** to find out what defects have been introduced or removed in each version.
- Editor deletions (**defects mute**) that recalculates metrics and indicators without having to re-analyze.
- **Grouping or filtering** application portfolios to facilitate data analysis.
- Ability to **integrate with other analyzers** (eg PMD, Findbugs, Checkstyle among others).
- Develop **your own coding rules** using the Kiuwan development of rules and SDK
- **Import defect metrics** from external analyzers and enjoy the capabilities Kiuwan offer with that data: mute defects, action plans, setting rules, etc.
- PDF report generation at executive level.
- CSV generation with defects and metrics.
- **Export** an action plan to Jira, PDF or CSV.

Make automatic or manual action plans and check their evolution



## SOME SCREENSHOTS

Summary



Defects distribution + filtering



Defects Remediation Timeline



Governance Dashboard



# KIUWAN IN YOUR DEVELOPERS' IDE

## Key Benefits

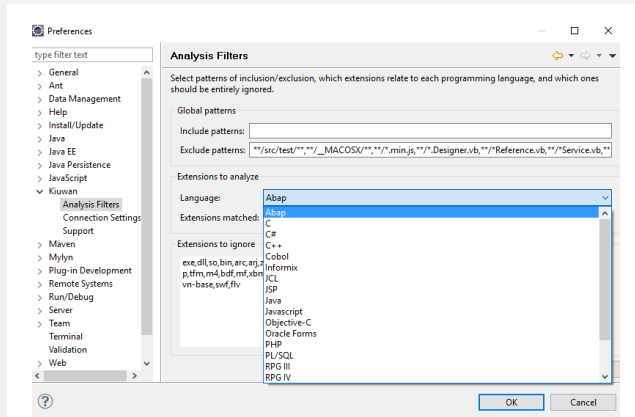
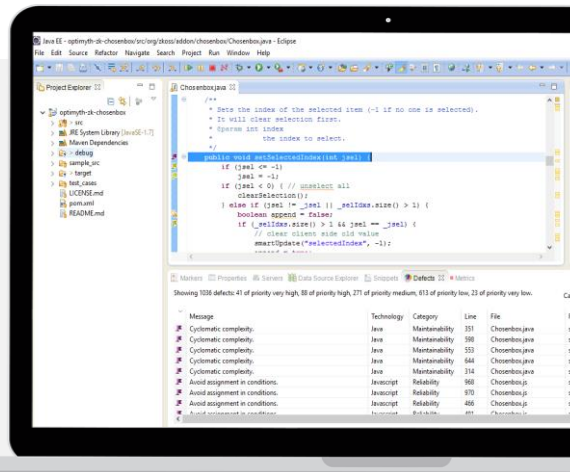
- Prevent issues as early as possible in the SDLC
- Consistent analysis throughout the organization using centrally managed models
- Automatic analysis on the IDE every time you save your code.
- Make sure all the code is analyzed locally before it is committed to the code repository
- Fix issues cheaper and faster.
- Create better software from inception
- Suitable for any development methodology including agile

## How?

- Kiuwan provides a plug-in available for Eclipse and IBM Rational Application Developer IDEs.
- The code is analyzed automatically when it's saved.
- The issues found are listed in their own panel
- Filtering capabilities, so you can see the issues found in a file, a package, an application or the whole workspace; or the ones relevant for security, maintainability or any other software characteristic.
- Selecting a defect in the panel will directly open the file where it was found in the editor on the specific line of code affected.
- The editor is decorated with defects found in the file highlighting the priority of the defect and tooltips with a description
- Additional panel with relevant intrinsic code metrics like cyclomatic complexity and more.
- Automatic plug-in updates.
- You just need your IDE of choice, a Kiuwan account with the Kiuwan for Developers option and licenses for your developers and an internet connection.

## Technologies supported by Kiuwan for Developers

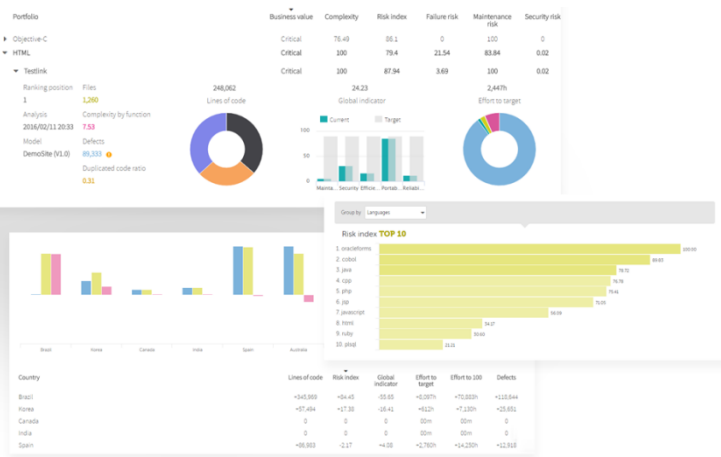
## Kiuwan in your Developers' IDE



Resource's metric	Value	Description
optimyth-zk-chozenbox		
Statements	278	This metric gives the number of executable sentences in a program file. Programs with a lar...
Response for a class	30	The metric measures the number of different methods that can be executed when an object...
Public methods	52	Number of public implemented methods.
Operations	64	Number of forms, modules, functions, paragraphs, subroutines, procedures, methods, cons...
Number of children	0	A class's number of children (NOC) metric simply measures the number of immediate desc...
Not documented API	25	API without comments.
Non commenting source statements	550	A simple volumetric metric that measures code size. Although considered a crude measure ...
Methods	64	This metric measures the number of methods. A method is a code block containing a series...
Lines of comments	266	Number of lines with comments. Comment lines are those which start with the comment ...
Lines of code	611	Number of lines of code. Lines of code are those lines of the file that are neither blank nor ...

## Metrics analysis made with Kiuwan for Developers

## GOVERNANCE DASHBOARDS



### Decision quadrants

Detect risky applications using different decision quadrants

### Evolution

Predictive analytics of the evolution of your application's portfolio.

### Activity

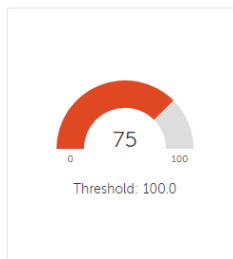
Record the activity of your development teams and software vendors, both in application and maintenance projects or change requests

## DECISION MAKING ORIENTED

- Filter and group information by applications **portfolios** at any time.
- Analyze the most important business **risks**.
- Compare** different portfolios of applications for important information about **suppliers, business areas, equipment or technology development**.
- Detect risky applications using different **decision quadrants**.
- Detect **business risks**.
- Detect **production risks**.
- Detect applications and portfolios with low **maintainability index**.
- Detect applications and portfolios with potential **security vulnerabilities**.
- Analyze the **evolution** of your portfolio of applications to predict early form where they will become problems.
- Record the **activity** of your development teams and software vendors, both in application and maintenance projects or change requests.
- Compare number of **rejected deliveries** from suppliers.
- Detect deviations from suppliers in compliance with industry standards.
- Full **historical** information to know what was the exact situation at any given point in time.
- Cross-reference** data from different application portfolios.
- Define permissions and roles for your users. Control what information and what actions every member of the team can perform.
- Corporate governance reports in PDF.
- Define **service-level agreements (SLA)** to be met by each provider and verify compliance.
- Measure and compare the level of **productivity** of each team member in a given time interval.

# AUDIT YOUR SOFTWARE DEVELOPMENT DELIVERIES

Your audit score



Your audit's overall result and why it happened

**FAIL**

Why?  
1 mandatory checkpoint(s) failed

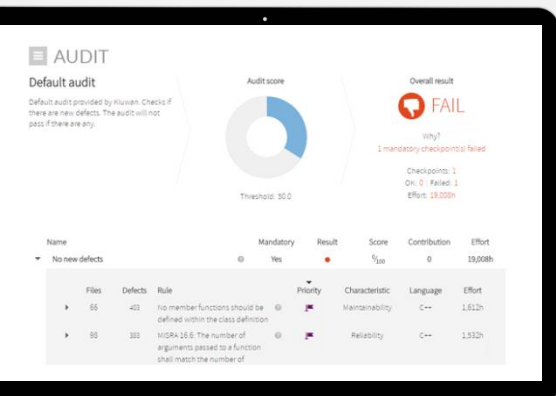
Checkpoints: 2  
OK: 1 | Failed: 1  
Effort: 6h 57

Failed checkpoints and rules included

Name	Mandatory	Result	Score	Contribution	Effort	
<b>Security defects</b>						
No new security defects	Yes	100%	75	00m		
<b>Other characteristics</b>						
No new very high or high in on any other characteristics	Yes	0%	0	6h 57		
<b>Files</b>	<b>Defects</b>	<b>Rule</b>	<b>Priority</b>	<b>Characteristic</b>	<b>Language</b>	<b>Effort</b>
1	1	Cyclomatic complexity	High	Maintainability	Java	4h 00
1	14	Do not instantiate temporal Objects in loops bodies.	High	Efficiency	Java	3h 24
1	2	Avoid calling non-final, non-static and non-private methods from constructors.	High	Reliability	Java	1h 00
1	1	Provide Javadoc comments for public classes and interfaces.	High	Maintainability	Java	30m

# MANAGE YOUR SOFTWARE DEVELOPMENT PROVIDERS

- Monitor the **base** of your application online.
- Define **checkpoints** and audits tailored to each type of project or change request.
- **Change request promotion to baseline** after acceptance of deliverable without rescanning.
- Views to compare different versions of applications in independent environments (Dev, test, production, etc...)
- State management for change requests or development projects (in progress, resolved, etc).
- Decide whether a new version of an application is **ready to promote** based on its status.
- **Automatically** check control points continuously during the construction or maintenance phases to ensure that applications do not degrade over time after modifications.
- Automate the entire process making Kiuwan connect with your **continuous integration system** (eg. Jenkins).
- Define **permissions and roles** for your users. Control what information and what actions every member of the team can perform.
- **Reporting** with defaults and effort required to repair deliveries.
- Control the work being done by each development team or each software vendor.
- Generate **reports** in PDF with detailed info on non-conformance deliveries.



## Key benefits

- Manage technical debt throughout your SDLC
- Development methodology agnostic
- Continuous integration automation
- No development effort left behind

## FULL LANGUAGES TAB

Languages
Java
JSP
Javascript
PHP
Powerscript
Objective-C
C/C++
C#
Swift
VB.net
ASP.net
VB6
Abap IV
Cobol
JCL
RPG III
RPG IV
Natural
SQL-92 Standard
Informix SQL
Transact-SQL
Oracle PL/SQL
Oracle Forms
Python

**New languages are added continuously.**

Please contact us to find out about the upcoming ones.

**SUPPORTED LANGUAGES**

20+ INCLUDING:

**IDE**


...

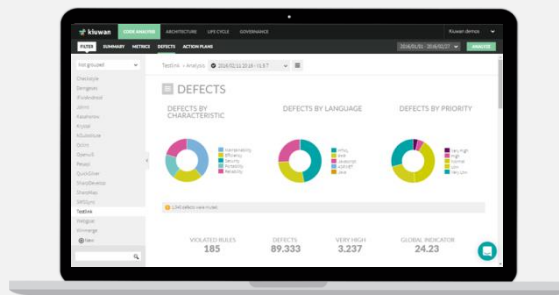
**BUILD SYSTEMS**

**BUG TRACKING**


...

**REPOSITORIES**


...



SCHEDULE A DEMO  
AT [KIUWAN.COM/CODE-ANALYSIS-QA](https://kiuwan.com/code-analysis-qa)

LEARN MORE  
AT [KIUWAN.COM](https://kiuwan.com)

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