

Metrics Management

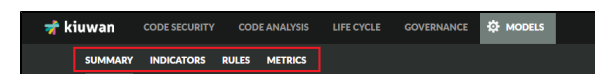
This guide explains the Kiuwan Metrics page in detail.

Contents:

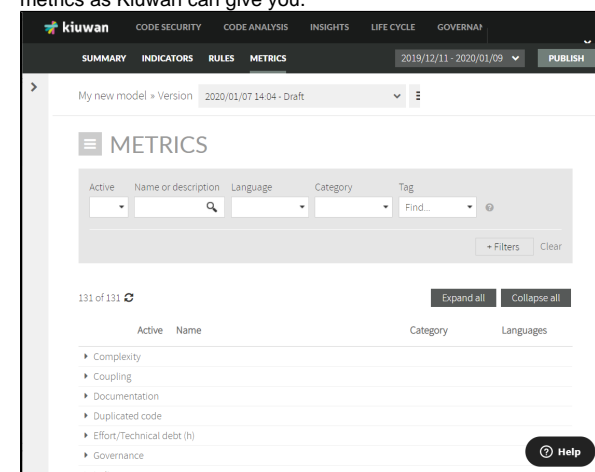
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Introduction

Go to **Model Management > Metrics** to access the metrics section.



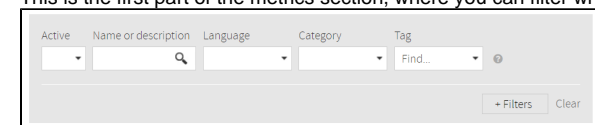
This section shows all the available metrics for current users and which of them are active in the current model version. Only Kiuwan metrics are available and they are not editable, but users can tag metrics as they need. All available metrics are mandatory, when a model is published all of them will be automatically added to the current model. This way your analyses will contain as much information about metrics as Kiuwan can give you.



Metrics Section

Filters

This is the first part of the metrics section, where you can filter which metrics are shown.



The default filters are:

Name	Description
Active	Shows the active metrics.
Name or description	Shows the metrics which match with the pattern written. This pattern is contained in the name or description of the metric and is highlighted in the metrics tree.
Language	Shows the metrics which match the selected language.
Category	Shows the metrics which match the selected category.
Tag	Shows the metrics that contain one or more tags.

+Filters	<p>Contains more advanced filters:</p> <ul style="list-style-type: none"> • Metric code filter. Show the metrics whose metric identifier matches the specified pattern. • Engine version filter. Show the metrics which match with the selected Kiuwan engine version. • Default configuration filter. Shows the metrics which have the default configuration.
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These filters can be combined with each other. When activating more than one filter, only metrics that match both filters are shown.

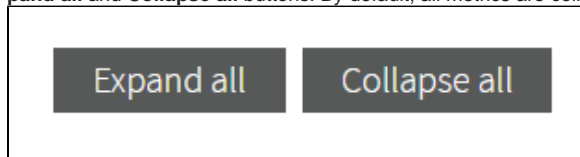
Each time the filter is changed, the metric counter under the filter section is updated according to the specified filter.

Metrics tree

The metrics are shown in this next section.

Active	Name	Category	Languages
▶	Complexity		
▶	Coupling		
▼	Documentation		
<input type="radio"/>	Comments percentage	Documentation	33 languages
<input type="radio"/>	Lines of comments	Documentation	34 languages
▼	Duplicated code		
<input type="radio"/>	Ratio of files with duplications	Quality	25 languages
<input type="radio"/>	Ratio of duplicated lines	Quality	25 languages
<input type="radio"/>	Duplicated code ratio	Quality	25 languages
<input type="radio"/>	Duplications	Quality	25 languages
<input type="radio"/>	Number of duplicated lines	Quality	25 languages
<input type="radio"/>	Number of lines in duplications	Quality	25 languages
▶	Effort/Technical debt (h)		

The metrics are shown in the form of a tree hierarchy. Nodes can be collapsed and expanded with the **Expand all** and **Collapse all** buttons. By default, all metrics are collapsed.



Each metric shows its activate status, its name, its category, and the technologies that it implements. Hover the mouse over the concrete language item in a metric to view the languages supported by the metric.

<ul style="list-style-type: none"> ▶ Coupling ▼ Documentation <ul style="list-style-type: none"> <input checked="" type="radio"/> Comments percentage <input type="radio"/> Lines of comments ▼ Duplicated code <ul style="list-style-type: none"> <input type="radio"/> Ratio of files with duplications 	Abap, Actionscript, ASP.NET, C, C++, C#, Cobol, HTML, Java, Javascript, JSP, Natural, Objective-C, Oracle Forms, PHP, PL/SQL, PowerScript, Python, RPG II, RPG IV, SQL, Transact-SQL, VB.NET, Visual Basic 6	33 languages 34 languages 25 languages
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Hover the mouse over the help icon to view details of some of the properties of each metric.

<p>Ratio of files with duplications</p> <p>Ratio of files affected by duplicated code.</p> <p>Code duplication, when excessive, makes maintenance more difficult, as any change of code logic in a clone should be done in all the clone instances. To enhance maintainability, code could be refactored to place all clone instances in a single place (e.g. a new function, paragraph or method), and then call the refactored code instead.</p>	<ul style="list-style-type: none"> Documentation 33 languages Documentation 34 languages Quality 25 languages Quality 25 languages
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Metric Information

Click the name of a metric to show the metric details window.

This window shows the full information of the selected metric. This information is separated into different sections as described below.

METRIC INFORMATION

Languages

Abap, Actionscript, ASP.NET, C, C++, C#, Cobol, HTML, Java, Javascript / Typescript, JCL, JSP, Natural, Objective-C, Oracle Forms, PHP, PL/SQL, PowerScript, Python, RPG III, RPG IV, SQL, Transact-SQL, VB.NET, Visual Basic 6

Name

Ratio of files with duplications

Description

Ratio of files affected by duplicated code.

Code duplication, when excessive, makes maintenance more difficult, as any change of code logic in a clone should be done in all the clone instances. To enhance maintainability, code could be refactored to place all clone instances in a single place (e.g. a new function, paragraph or method), and then call the refactored code instead.

Parameters

No parameters defined.

Help

Name	Description
Languages	The languages this metric covers.
Name	Name of the metric.
Description	A full description of the metric explaining how it operates and the programming languages it applies to.
Parameters	The parameters of the metrics.
Thresholds	It contains indicative information about which metric values are considered: Good, Bad, or Regular. Thresholds can be defined by technology.
Tags	Metrics can be tagged. The field Custom tag is editable and you can add your own tags or use Kiuwan's.
Category	It shows the category the metric belongs to. This value is not editable.
Range	It shows the valid values for the metric and how to know when a value is good for your application. These values aren't editable.
Value meaning	It shows the documentation references for the metric. These values aren't editable.
References	References to the source of the metric.
Code Examples	This section shows the value obtained when the metric is applied to the code examples provided. A code example is provided for each supported technology.
Details	<ul style="list-style-type: none"> • Owner field. • Metric code field. • Engine field. • Engine version field. • Metric version field. • Creation date field. • Last modification date field.
Implementations	Choose one of the technologies supported by the metric and see its implementation code, Java class, and description.
Internal parameters	The name-value pairs of the parameters used internally by the metric.