

Engineering Dashboard - Continuous Improvement

- [Introduction](#)
 - [Accessing the feature](#)
- [What does the feature show?](#)
- [Using the Violation Statuses](#)
 - [Removed](#)
 - [Added](#)
 - [Total](#)



Summary: This page provides about the **Continuous Improvement** feature in the **Engineering Dashboard**.

Introduction

The **Continuous Improvement feature** allows you to view **details/violations/statistics** about the rules that have been selected for [Education](#).

Accessing the feature

To access the feature:

From the [Side Menu bar](#), click the following icon:



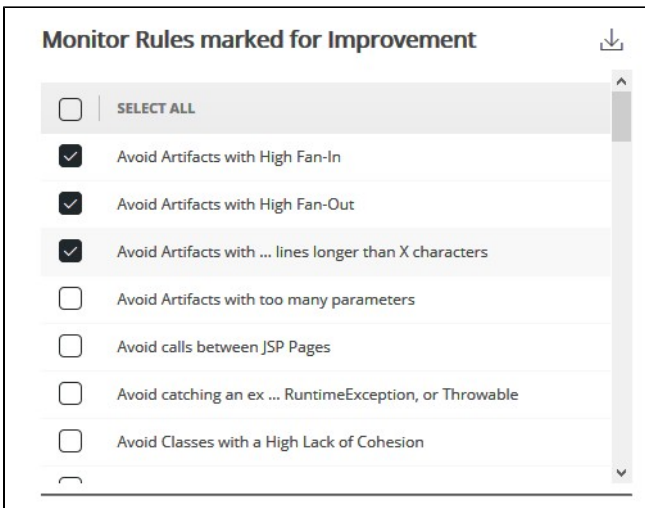
The focus will be set to the **Education tab** when using this icon and you will need to switch to the **Improvement tab**.



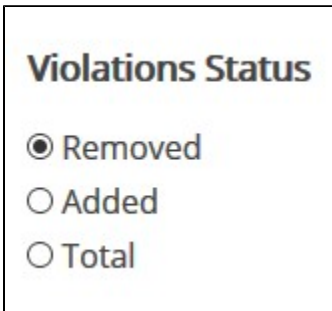
What does the feature show?

This page allows you to view **details/violations/statistics** about the rules that have been selected for **Education**:

All the rules marked for "[Education](#)" are listed in the upper right corner, with a selector for all the rules. Selecting or deselecting a rule will update the statistics and graphs. Data in the rest of the page is based on the rules selected here:



Three violation status radio buttons listed in the bottom right corner - selecting a specific option will update the statistics and graphs about the rules that have been selected in the upper right corner:



A graph depicting violations count in the y-axis and snapshots date in the x-axis together with a Violations improvement-summary on top of the Graph:



Table showing a list of Violations in the current snapshot for all rules selected in the upper right corner:

List of Violations in current Snapshot

added 540 **removed** 0



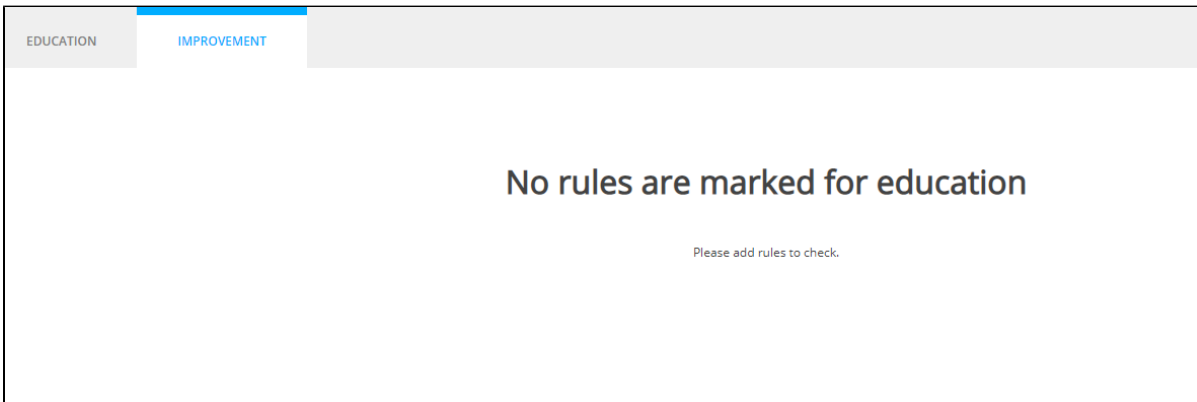
RULE	OBJECT NAME LOCATION	STATUS	
Avoid Artifacts with High Fan-In	[D:\CASTMS\Deploy\MIPSActionPlanStudy\Monster\J2EE\WebContent\jsp\menu.jsp]	added	→ ↗
Avoid Artifacts with High Fan-In	com.cast.monster_event.base.dao.JPAResourceDao.beginTransaction	added	→ ↗



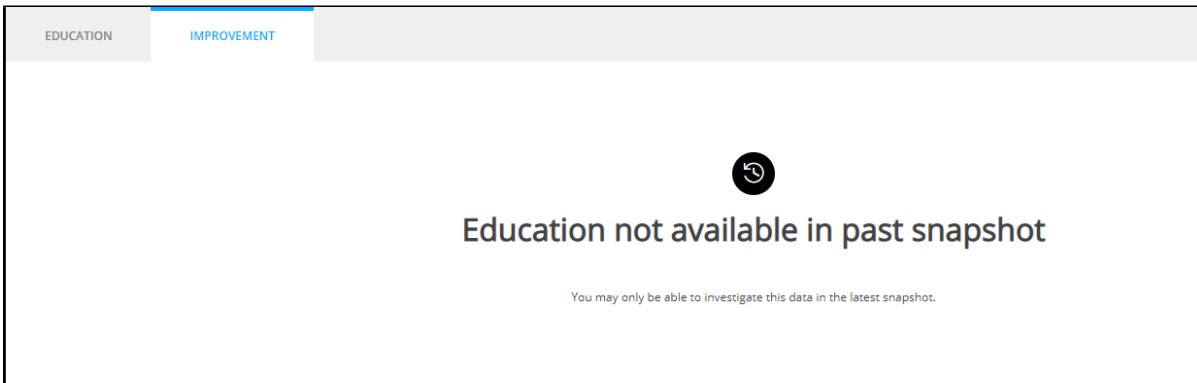
Note that when there are many violations to display, a **"Show More"** button will be available. By default, only 10 violations are displayed to improve performance. You can choose to display more using the various options (+10, +100 etc.). By default an upper maximum of 5000 violations is set when the "All" option is clicked. You can change the upper maximum if required (see the **violationsCount** option in [Engineering Dashboard json configuration options](#)).



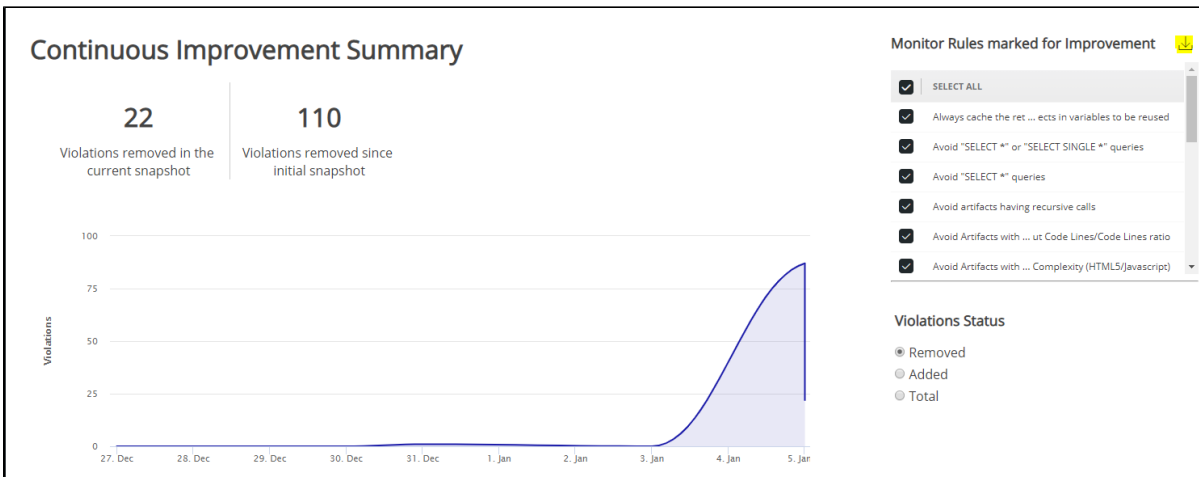
When no rules have been added to the **Education tab**, the page will display:



When a previous snapshot is active, no data can be displayed in the Improvement tab and the following will be displayed:

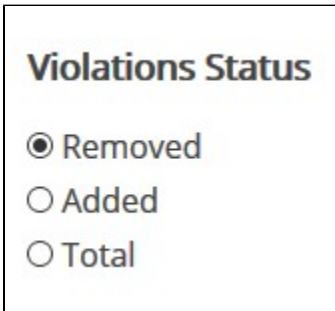


Rules can be exported to Excel:



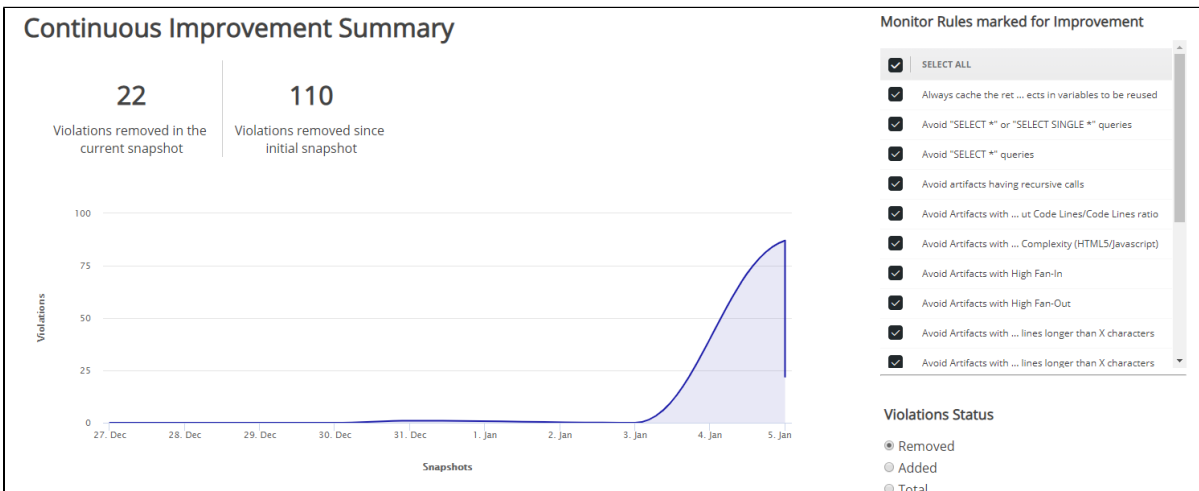
Using the Violation Statuses

Selecting one of the three Violation statuses will update the graphs as described below:



Removed

On selection of the **Removed** status, the graph will display the number of **Violations removed in the current snapshot** and the number of **Violations removed since initial snapshot** for a selected rule. Hovering the mouse pointer over the graph tool tip text displays added violations count, snapshot version and snapshot date for that particular snapshot in the x-axis:



Added

On selection of the **Added** status, the graph will display the number of **Violations added in the current snapshot** and the number of **Violations added since initial snapshot** for a selected rule. Hovering the mouse pointer over the graph tool tip text displays added violations count, snapshot version and snapshot date for that particular snapshot in the x-axis:

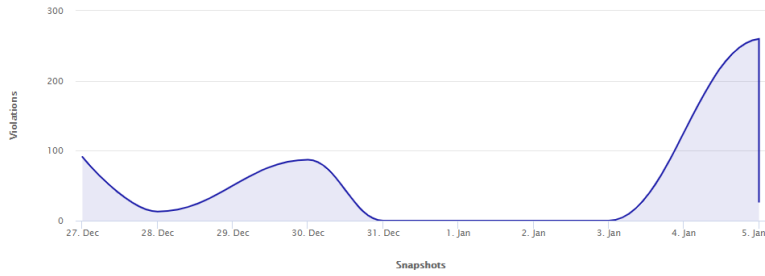
Continuous Improvement Summary

27

Violations added in the current snapshot

478

Violations added since initial snapshot



Monitor Rules marked for Improvement

- SELECT ALL
- Always cache the results in variables to be reused
- Avoid "SELECT *" or "SELECT SINGLE *" queries
- Avoid "SELECT *" queries
- Avoid artifacts having recursive calls
- Avoid Artifacts with ... ut Code Lines/Code Lines ratio
- Avoid Artifacts with ... Complexity (HTML5/Javascript)
- Avoid Artifacts with High Fan-In
- Avoid Artifacts with High Fan-Out
- Avoid Artifacts with ... lines longer than X characters
- Avoid Artifacts with ... lines longer than X characters

Violations Status

- Removed
- Added
- Total

Total

On selection of the **Total** status, the graph will display the number of **Violations in current snapshot**, percentage (number) of violations that have **Increased since initial snapshot** and the percentage of violations that have **Increased since previous snapshot** for a selected rule. Hovering the mouse pointer over the graph tool tip text displays added violations count, snapshot version and snapshot date for that particular snapshot in the x-axis:

Continuous Improvement Summary

368

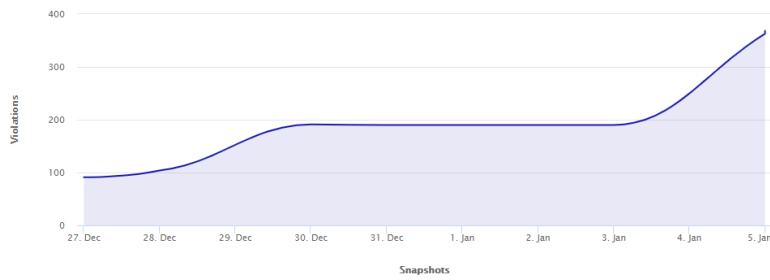
Violations current snapshot

304.40% (277)

Increased since initial snapshot

1.38% (5)

Increased since previous snapshot



Monitor Rules marked for Improvement

- SELECT ALL
- Always cache the results in variables to be reused
- Avoid "SELECT *" or "SELECT SINGLE *" queries
- Avoid "SELECT *" queries
- Avoid artifacts having recursive calls
- Avoid Artifacts with ... ut Code Lines/Code Lines ratio
- Avoid Artifacts with ... Complexity (HTML5/Javascript)
- Avoid Artifacts with High Fan-In
- Avoid Artifacts with High Fan-Out
- Avoid Artifacts with ... lines longer than X characters
- Avoid Artifacts with ... lines longer than X characters

Violations Status

- Removed
- Added
- Total