

Changes in results post upgrade - 8.2.6

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Target audience:

CAST AI Administrator



Summary: this page lists:

- impacts of changes made in CAST AIP 8.2.6 on Quality Model results
- other impacts of changes made in CAST AIP 8.2.6
- miscellaneous result changes

The changes listed assume that an upgrade from CAST AIP 8.2.5 to CAST AIP 8.2.6 has taken place.

Introduction

Each CAST AIP release provides new features which improve the value of the platform and justify an upgrade. However, there are a number of changes or improvements which can impact the measurement results/grades:

- New or improved Quality Rules to perform deeper analysis
- Updates to the Assessment Model, e.g. changes to rule weights, severity or thresholds. This can be mitigated by using the "Preserve assessment model" option during the [upgrade](#).
- Improvements of the language analysis, e.g. more fine-grained detection of objects or links
- Extended automatic discovery of files included in the analysis

- Bug fixes to improve the precision of results
- And, unfortunately, a new release may also introduce new bugs which may impact the results until they are discovered and removed

Below is a list of changes made to the current release of CAST AIP that are known to cause impacts to results. You can also consult [Case Study - Measurement changes after upgrade for selected customer applications](#) which provides a more detailed analysis based on a few sample applications.

Analyzing the root causes of impacts to measurement results/grades

The following is a general description of the steps that should be taken in order to compare pre and post upgrade results:

- **Step 1:** Take a snapshot (including a source code analysis) with the previous release of CAST AIP before upgrading to the new release of CAST AIP
 - Check the list of applications to be analyzed, the list of files per application and list of SQL objects from the Analysis Service.
- **Step 2:** Compare the source code in version 1 (before upgrade) with the source code in the new version 2 (after upgrade)
 - Compare the list of analyzed files, list of files per application and list of SQL objects between the two Analysis Services
- **Step 3:** Compare the results of the application analysis and snapshot post upgrade. This can be done by comparing the snapshots available in the Dashboard Service to find the differences in:
 - Quality rules
 - Violations
 - Grades at Business Criteria level
 - Function Points
 - Transactions
 - Lines of code
- **Step 4:** Compare the data functions and transactions across the source Analysis Service and the target Analysis Service post upgrade.

Impacts of changes made in CAST AIP 8.2.6 on Quality Model results post upgrade

SQL

Avoid tables without primary key - 8082

A bug has been discovered that causes CAST AIP to report 0 violations to the above named Quality Rule (i.e. grade is always set to 4). This bug has now been fixed, therefore after an upgrade to CAST AIP 8.2.6 and the generation of a post upgrade snapshot on the same source code, results may differ: there will be an increase in the number of violations reported, improving accuracy.

Avoid Artifacts with high Commented-out Code Lines/Code Lines ratio - 7126

A bug has been discovered that causes CAST AIP to falsely report a violation to the above named Quality Rule. In addition, the Quality Rule routinely returns a value of over 100% for the comment out code. The false violation and incorrect % of commented out code is due to the fact that the analyzer does not support Oracle Conditional Compiler directives that start with \$\$\$. When one of these is encountered in the code, the Quality Rule is falsely violated. This bug has now been fixed (Oracle Conditional Compiler directives that start with \$\$\$ are now supported), therefore after an upgrade to CAST AIP 8.2.6 and the generation of a post upgrade snapshot on the same source code, results may differ: there will be a decrease in the number of violations reported and % values for commented out code will be correct, therefore improving accuracy.

JEE

Avoid testing floating point numbers for equality - 8096

A bug has been discovered that causes CAST AIP to falsely report a violation to the above named Quality Rule when floats are compared to NULL. This bug has now been fixed (if any of the operands is null while checking for floating point equality no violation will be reported), therefore after an upgrade to CAST AIP 8.2.6 and the generation of a post upgrade snapshot on the same source code, results may differ: there will be a decrease in the number of violations reported, improving accuracy.

Other impacts of changes made in CAST AIP 8.2.6

JEE

JavaScript files classed as external

A bug has been discovered where a JavaScript file that belongs to two overlapping Analysis Units will be classed as "internal" rather than "external" (i.e. not subject to Quality Rule examination, LOC counting etc.) even though the "Exclude standard Javascript libraries" option has been selected for both Analysis Units. This bug has now been fixed (JavaScript files belonging to two overlapping Analysis Units will be classed as "external"), therefore after an upgrade to CAST AIP 8.2.6 and the generation of a post upgrade snapshot on the same source code, results may differ.

Miscellaneous result changes

N/A