# **Information**

**Version 1.5.0**

**All placeholders are always working for one application and one snapshot**

**You can copy/paste each placeholder below by selecting the full content.**

**Some of placeholders could have parameters to modify**

**Sample, you can choose the number of lines you want to display and you can decide for which Business Criteria, you want to link your placeholder**

## **Text placeholders**

Select the text box, right click for the contextual menu, then Format Shape.

In the Format Shape menu, Shape Options, Layout & Properties, Alt Text, fill the Description field with the component options



## **Graph placeholders**

Select the chart, right click for the contextual menu, then Format Chart Area.

In the Format Chart Area menu, Chart Options, Layout & Properties, Alt Text, fill the Description field with the component options



## **Table placeholders**

Select the table, right click for the contextual menu, then Table Properties.

Alt Text tab, fill the Description field.



# **List of available Place Holders**

## **TEXT Format Blocks**

🡪 Type = **TEXT**

### **Date of the day**

🡪 Block Name = **TODAY\_DATE**  
 🡪 Options: *none*

Monday, xx July 2012

### **Dashboard Website Url**

🡪 Block Name = **DASHBOARD\_SERVICE\_URL**  
 🡪 Options: none – this Text block might be empty and will only work on an analytics database. Engineering databases do not contain this information.

http://host/AED

### **Application Version**

🡪 Block Name = **CAST\_VERSION**  
 🡪 Options: *none*

My Application Version

### **System Name**

🡪 Block Name = **SYSTEM\_NAME**  
 🡪 Options: none

My System Name

*This Text block is only relevant on engineering databases. There is no real system on analytics database, just a fake one called “All Applications”.*

### **Application Name** 🡪 Block Name = **APPLICATION**\_**NAME** 🡪 Options: **none**

My Application Name

### **Last Snapshot Version Name**

🡪 Block Name = **LAST\_SNAPSHOT\_VERSION**  
 🡪 Options: ***none***

Version Number

### **Last Snapshot Date**

🡪 Block Name = **LAST\_SNAPSHOT\_DATE**  
 🡪 Options: none

Snapshot Date

### **Previous Snapshot Version Name**

🡪 Block Name = **PREVIOUS\_SNAPSHOT\_VERSION**  
 🡪 Options: *none*

Version Number

### **Previous Snapshot Date**

🡪 Block Name = **PREVIOUS\_SNAPSHOT\_DATE**  
 🡪 Options: none

Snapshot Date

### **Size Application Category**

🡪 Block Name = **APPLICATION\_SIZE\_TYPE**  
 🡪 Options: none

Small/Medium/Large/ExtraLarge

### **Quality Application Category** 🡪 Block Name = **APPLICATION\_QUALITY\_TYPE** **🡪** Options: **none**

VeryLow/Low/Medium/Good/VeryGood

### **Grade for a quality rule (id can be changed)**

🡪 Block Name = APPLICATION\_RULE

This block has been replaced by the following APPLICATION\_METRIC. It is kept only for backward compatibility. Its options and behaviour are the same than APPLICATION\_METRIC text block.

### **Result for a metric id**

🡪 Block Name = APPLICATION\_METRIC

🡪 Options:

* ID=QualityRuleId or TechnicalCriterionId or BusinessCriterionId
* Or SZID=Sizing Measure Id
* Or BFID = Background Fact Id
* SNAPSHOT=PREVIOUS | CURRENT (CURRENT by default)
* FORMAT = N0 | N2 (only for sizing measure or background fact)

0.00

### **Technical Debt Result**

🡪 Block Name = **METRIC\_TECHNICAL\_DEBT**  
 🡪 Options = none

0.00

### **Unadjusted Data Function Metric Value**

🡪 Block Name = **METRIC\_AFP\_DF**  
 🡪 Options = *none*

0.00

### **Unadjusted Transactional Function Metric**

🡪 Block Name = **METRIC\_AFP\_TF**   
 🡪 Options = *none*

0.00

### **Rule Total Checks**

🡪 Block Name = **RULE\_TOTAL\_CHECKS**  
 🡪 Options =   
*RULID=quality rule Id,   
SNAPSHOT=CURRENT|PREVIOUS (CURRENT by default)*

0.00

### **Rule Failed Checks**

🡪 Block Name = **RULE\_FAILED\_CHECKS**  
 🡪 Options =   
*RULID=quality rule Id,   
SNAPSHOT=CURRENT|PREVIOUS (CURRENT by default)*

0.00

### **Rule Failed checks on Total Checks**

🡪 Block Name = **RULE\_FAILED\_ON\_TOTAL\_CHECKS**  
 🡪 Options =   
*RULID=quality rule Id,   
SNAPSHOT=CURRENT|PREVIOUS (CURRENT by default)*

0.00

### **Added EFP Metric Value**

🡪 Block Name = **METRIC\_EFP\_ADDED**  
 🡪 Options = *none*

0.00

### **Deleted EFP Metric Value**

🡪 Block Name = **METRIC\_EFP\_DELETED**  
 🡪 Options = *none*

0.00

### **Modified EFP Metric Value**

🡪 Block Name = **METRIC\_EFP\_MODIFIED**  
 🡪 Options = *none*

0.00

### **Aggregated EFP Metric Value**

🡪 Block Name = **METRIC\_EFP**   
 🡪 Options = *none*

0.00

### **Report Generator version**

🡪 Block Name = **REPGEN\_VERSION**   
 🡪 Options = *none*

0.00

### **Custom Expression**

🡪 Block Name = **CUSTOM\_EXPRESSION**   
 🡪 Options =

* PARAMS=SZ a SZ b, (SZ for sizing measure, QR for quality rule, BF for background fact)
* EXPR=a/b, (operators can be +, -, \*, / , (, ) )
* a=MetricId, (sample 67011 – all critical violations)
* b=MetricId, (sample 10202 – Total AFP)
* FORMAT=N0 (N2 by default, if nothing or erroneous format is set),
* SNAPSHOT = CURRENT|PREVIOUS with CURRENT by default (or if erroneous or nothing is set) to get the custom expression for the current snapshot or the previous one

0.00

Note:   
You are not limited in the number of parameters to be used in your expression (a, b, c, d…)  
/!\ don’t put blank char in the definition of parameters (,a=67011,b=67010,c=…)

## **GRAPH Format**

🡪 Type = **GRAPH**

### **Distribution of technology by Lines of code**

🡪 Block Name = **TECHNO\_LOC**  
 🡪 Options: **COUNT=N** where N is the shown technologies count (default value=5)

### **Health Factors Radar**

🡪 Block Name = **RADAR\_HEALTH\_FACTOR\_2\_LAST\_SNAPSHOTS**

🡪 Options: *none*

### **Compliance Radar**

🡪 Block Name = **RADAR\_COMPLIANCE\_2\_LAST\_SNAPSHOTS**

🡪 Options: *none*

### **Health Factors Trending**

🡪 Block Name = **TREND\_HEALTH\_FACTOR** 🡪 Options: **ZOOM=N.N** (added value to the max value of the graph as superior border and removed value to the min value of the graph as inferior border ; no zoom by default)

### **Compliance Trending**

🡪 Block Name = **TREND\_COMPLIANCE** 🡪 Options: **ZOOM**: if text “ZOOM” is present in options, it indicates that the min border value of the graph is the floor of the min value of the graph and the top border value is the ceiling of the max value (by default : min = 1 and max = 4)

### **Technical Debt Trending progression**

🡪 Block Name = **TREND\_TECH\_DEBT** 🡪 Options: *none*

### **Cast Complexity**

🡪 Block Name = **CAST\_COMPLEXITY**  
 🡪 Options: none

🡪 Definition: CAST provides a distribution of objects based on several distributions:

-Algorithm Complexity (based on Cyclomatic complexity

-SQL Complexity

-Coupling (Fan in, Fan out)

-Ratio of documentation

-Size of components

For more information, go on chapter “Cost”

<http://doc.castsoftware.com/help/index.jsp?topic=%2Fcurrent%2FHow+Complexity+metrics+are+calculated+by+CAST.html>

This component is only relevant on an engineering database.

### **Cast Distribution**

🡪 Block Name = **CAST\_DISTRIBUTION**  
 🡪 Options: **PAR** = distribution id

🡪 Definition:

CAST provides a distribution of objects based on the chosen distribution.

PAR = 65501 by default because if PAR is omitted, the CAST\_DISTRIBUTION display the CAST\_COMPLEXITY distribution

This graph is relevant only on engineering databases, it is empty on analytics databases.

### **Technical Debt Trending Bubble**

🡪 Block Name = **BUBBLE** 🡪 Options: **M=*ModuleId***, if present, only data from indicated module will be shown, obviously data from the entire snapshot will be shown.

### **Module artifacts**

🡪 Block Name = **MODULE\_ARTIFACTS** 🡪 Options: ***COUNT=N*** *where N indicates the number of top N*

### **Generic Trending**

🡪 Block Name = **TREND\_METRIC\_ID** 🡪 Options: - QID=60017|66031|7126 : list BC, TC or QR metric id separated by | (max 10)

* Or SID=10151|67211 : list of sizing measures id separated by | (max 10)
* Or BID=66061|66062 : list of background facts id separated by | (max 10)

### **Generic Radar**

🡪 Block Name = **RADAR\_METRIC\_ID**

🡪 Options:

* ***ID****=list of metric id (BC, TC or QR) separated by ‘|’, for example ID=ID=60017|60016|66031|61007|7156|3566*
* ***SNAPSHOT****=CURRENT or PREVIOUS or BOTH*

## **TABLE Format**

🡪 Type = **TABLE**

### **Top Technologies - Size**

🡪 Block Name = **TECHNO\_LOC** 🡪 Options:

* **COUNT=N** where N is the shown technologies count (default value=5)
* **NOSIZE** to hide the “LoC” column (default)

**Top 5 Technologies**

|  |  |  |
| --- | --- | --- |
| Name |  | LOC |
| Techno 1 |  | 000,000 |
| Techno 2 |  | 000,000 |
| Techno 3 |  | 000,000 |
| Techno 4 |  | 000,000 |
| Techno 5 |  | 000,000 |

### **Top Modules - Size**

🡪 Block Name = **LOC\_BY\_MODULE**

🡪 Options : **FORMAT=LOC|KLOC**, by default or if omitted, format is LOC

**Top 5 Modules**

|  |  |  |
| --- | --- | --- |
| Name | | LOC |
| Module 1 | 000,000 | |
| Module 2 | 000,000 | |
| Module 3 | 000,000 | |
| Module 4 | 000,000 | |
| Module 5 | 000,000 | |

### **Top Technologies - Grades**

🡪 Block Name = **BC\_BY\_TECHNO** 🡪 Options:

* **ID=BC ID** (by default ID is 60017)

**Top 5 Technologies**

|  |  |
| --- | --- |
| Name | Value |
| Techno 1 | 000,000 |
| Techno 2 | 000,000 |
| Techno 3 | 000,000 |
| Techno 4 | 000,000 |
| Techno 5 | 000,000 |

### **Top Technologies – Size Evolution**

🡪 Block Name = **TECHNO\_LOC\_EVOLUTION** 🡪 Options: **COUNT=N** where N is the shown technologies count (default value=5)

**Top 5 Technologies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Previous LOC | Current LOC | Evolution | Evolution % |
| Techno 1 | 0,000 | 0,000 | 0,000 | 0.00 |
| Techno 2 | 0,000 | 0,000 | 0,000 | 0.00 |
| Techno 3 | 0,000 | 0,000 | 0,000 | 0.00 |
| Techno 4 | 0,000 | 0,000 | 0,000 | 0.00 |
| Techno 5 | 0,000 | 0,000 | 0,000 | 0.00 |

### **Technologies – LoC by Module**

🡪 Block Name = **TECHNO\_LOC\_BY\_MODULE** 🡪 Options: *none*

**Technologies – LoC by Module**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Techno1 | Techno2 | Techno3 | Techno4 |
| Module 1 | 0,000 | 0,000 | 0,000 | 0.00 |
| Module 2 | 0,000 | 0,000 | 0,000 | 0.00 |
| Module 3 | 0,000 | 0,000 | 0,000 | 0.00 |
| Module 4 | 0,000 | 0,000 | 0,000 | 0.00 |
| Module 5 | 0,000 | 0,000 | 0,000 | 0.00 |

### **Technical Size information**

🡪 Block Name = **TECHNICAL\_SIZING** 🡪 Options: none

**Technical Size**

|  |  |
| --- | --- |
| Name | Number |
| kLOCs | 000 |
| Files | 0,000 |
| Classes | 0,000 |
| SQL Art. | 00 |
| Tables | 00 |

### **Technical Size Evolution information**

🡪 Block Name = **TECHNICAL\_SIZING\_EVOLUTION** 🡪 Options: none

**Technical Size Evolution**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Prev. Number | Cur. Number | Evolution | Evolution % |
|  |  |  |  |  |
| kLOCs | 000 | 000 | 000 | 0.00% |
| Files | 0,000 | 0,000 | 0,000 | 0.00% |
| Classes | 0,000 | 0,000 | 0,000 | 0.00% |
| SQL Art. | 00 | 00 | 00 | 0.00% |
| Tables | 00 | 00 | 00 | 0.00% |

### **Functional Weight information**

🡪 Block Name = **FUNCTIONAL\_WEIGHT** 🡪 Options: *none*

**Function Weight**

|  |  |
| --- | --- |
| Name | Number |
| Automated Function Points | 000 |
| Decision Points (Total CC) | 0,000 |
| Back Fire Function Points | 0,000 |

### **Functional Weight Evolution Information**

🡪 Block Name = **FUNCTIONAL\_WEIGHT \_EVOLUTION** 🡪 Options: none

**Functional Weight Evolution**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Prev. Number | Cur. Number | Evolution | Evolution % |
| Automated Function Points | 000 | 000 | 000 | 0.00% |
| Decision Points (Total CC) | 0,000 | 0,000 | 0,000 | 0.00% |
| Back Fire Function Points | 0,000 | 0,000 | 0,000 | 0.00% |

### **Health Factors Grades & Evolution on Previous Snapshot, header can be changed (short, long)**

🡪 Block Name = **HEALTH\_FACTOR** 🡪 Options:

* **HEADER=SHORT** (indicates that short headers will be shown, obviously long
* **SHOW\_EVOL=1** (displays a row indicating evolution as absolute values (delta), by default this row IS NOT displayed)
* **SHOW\_EVOL\_PERCENT=0** (displays a row indicating evolution as relative values (percent), by default this row IS displayed)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | TQI | Robu | Efcy | Secu | Trans | Chang |
| Curr. Vers | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |
| Prev. Vers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Variation | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |

### **Health Factors Grades & Evolution by Module on Current Snapshot, Previous Snapshot, header can be changed (short, long)**

🡪 Block Name = **HF\_BY\_MODULE** 🡪 Options: **HEADER=SHORT** (indicates that short headers will be shown, obviously long header will be shown)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | TQI | Robu | Efcy | Secu | Trans | Chang |
| Curr. Vers |  |  |  |  |  |  |
| Module 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  |  |  |  |  |  |  |
| Prev. Vers |  |  |  |  |  |  |
| Module 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  |  |  |  |  |  |  |
| Variation |  |  |  |  |  |  |
| Module 1 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |
| Module 2 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |
| Module 3 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |
| Module 4 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |

### **Compliance Grades & Evolution**

🡪 Block Name = **COMPLIANCE** 🡪 Options: **HEADER=SHORT** (indicates that short headers will be shown, obviously long header will be shown)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Prog. | Arch. | Doc. |
| Curr. Vers | **0.00** | **0.00** | **0.00** |
| Prev. Vers | 0.00 | 0.00 | 0.00 |
| Variation | 0.00 % | 0.00 % | 0.00% |

### **Statistics on Violations**

🡪 Block Name = **VIOLATION\_STATISTICS** 🡪 Options: *none*

|  |  |
| --- | --- |
| Name | Number |
| Critical Violations | 0,000 |
| per File | 0.00 |
| per kLOCs | 0.00 |
| Complex Objects | 0,000 |
| with violations | 000 |

### **Statistics on Violations**

🡪 Block Name = **VIOLATION\_STATISTICS\_EVOLUTION** 🡪 Options: *none*

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Current | Previous | Evolution |
| Critical Violations | 0.000 | 0,000 | 0.00 % |
| per File | 0.00 | 0.00 | 0.00 % |
| per kLOCs | 0.00 | 0.00 | 0.00 % |
| Complex Objects | 0.000 | 0,000 | 0.00 % |
| with violations | 0.00 | 0.00 | 0.00 % |

### **Top Critical Violations (number of rules can be changed in Properties)**

🡪 Block Name = **TOP\_CRITICAL\_VIOLATIONS** 🡪 Options:

* **COUNT=N** where N indicate the number of the top N,
* **PAR=**BC-ID where BC-ID indicate the id of the business criterion

|  |  |
| --- | --- |
| Rules | Count |
| Rule 1 | 0 |
| Rule 2 | 0 |
| Rule 3 | 0 |
| Rule 4 | 0 |
| Rule 5 | 0 |

### **Evolution of Top Critical Violations (number of rules can be changed in Properties)**

🡪 Block Name = **TOP\_CRITICAL\_VIOLATIONS\_EVOLUTION**  
 🡪 Options:

* COUNT=N where N indicate the number of the top N,
* PAR=BC-ID where BC-ID indicate the id of the business criterion

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rules | Current | Previous | Evolution | Evolution % |
| Rule 1 | 0 | 0 | 0 | 0.00% |
| Rule 2 | 0 | 0 | 0 | 0.00% |
| Rule 3 | 0 | 0 | 0 | 0.00% |
| Rule 4 | 0 | 0 | 0 | 0.00% |
| Rule 5 | 0 | 0 | 0 | 0.00% |
| Rule 6 | 0 | 0 | 0 | 0.00% |
| Rule 7 | 0 | 0 | 0 | 0.00% |
| Rule 8 | 0 | 0 | 0 | 0.00% |
| Rule 9 | 0 | 0 | 0 | 0.00% |
| Rule 10 | 0 | 0 | 0 | 0.00% |

### **Top Non Critical Violations (number of rules can be changed in Properties)**

🡪 Block Name = **TOP\_NON\_CRITICAL\_VIOLATIONS** 🡪 Options: **COUNT=N** where N indicate the number of the top N

|  |  |
| --- | --- |
| Rules | Count |
| Rule 1 | 0 |
| Rule 2 | 0 |
| Rule 3 | 0 |
| Rule 4 | 0 |
| Rule 5 | 0 |
| Rule 6 | 0 |
| Rule 7 | 0 |
| Rule 8 | 0 |
| Rule 9 | 0 |
| Rule 10 | 0 |

### **Evolution of Top Non Critical Violations (number of rules can be changed in Properties)**

🡪 Block Name = **TOP\_NON\_CRITICAL\_VIOLATIONS\_EVOLUTION** 🡪 Options: **COUNT=N** where N indicate the number of the top N

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rules | Prev. Count | Cur. Count | Evolution | Evolution % |
| Rule 1 | 0 | 0 | 0 | 0.00% |
| Rule 2 | 0 | 0 | 0 | 0.00% |
| Rule 3 | 0 | 0 | 0 | 0.00% |
| Rule 4 | 0 | 0 | 0 | 0.00% |
| Rule 5 | 0 | 0 | 0 | 0.00% |
| Rule 6 | 0 | 0 | 0 | 0.00% |
| Rule 7 | 0 | 0 | 0 | 0.00% |
| Rule 8 | 0 | 0 | 0 | 0.00% |
| Rule 9 | 0 | 0 | 0 | 0.00% |
| Rule 10 | 0 | 0 | 0 | 0.00% |

### **For a Business Criterion, list of technical criteria listed by highest improvement opportunity (by Business criteria, indicator that could be changed in the properties)**

🡪 Block Name = **TC\_IMPROVEMENT\_OPPORTUNITY** 🡪 Options: **PAR=N** where N indicate the Business Criterion Id  
 **COUNT=N** where N is the number of the top N

🡪 Formula is – Sum (rule weight x technical criterion weight) \* (4 – technical criterion grade)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Technical Criterion | Total Violation (#) | | Total Check (#) | Grade |
| Criteria1 | | 1 | 1 | 2.2 |
| Criteria2 | | 2 | 2 | 1.4 |
| Criteria3 | | 3 | 3 | 3.23 |
| Criteria4 | | 4 | 4 | 3.45 |
| Criteria5 | | 5 | 5 | 2.2 |
| Criteria6 | | 6 | 6 | 1.4 |
| Criteria7 | | 7 | 7 | 3.23 |
| Criteria8 | | 8 | 8 | 3.45 |
| Criteria9 | | 9 | 9 | 2.3 |
| Criteria10 | | 10 | 10 | 3.5 |

### **For a Business Criterion, list of rules listed by highest improvement opportunity (by Business criteria, indicator that could be changed in the properties)**

🡪 Block Name = **RULE\_IMPROVEMENT\_OPPORTUNITY** 🡪 Options:

* **PAR=N** where N indicate the Business Criterion Id
* **COUNT=N** where N is the number of the top N
* **C=N** where N represents the order of the result :

C=0 or nothing indicates a descending *Improvement gap* order

C=1 indicates a descending *Improvement variation* order

C=2 indicates a descending *Degradation variation* order

🡪 Formula is - (quality rule weight x technical criterion weight) \* (4 – technical criterion grade)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Rule | Current violation | Previous violation | Evol. | Grade | Evol. |
| Rule1 | 1 | 1 | 1 | 2.2 | 1 |
| Rule2 | 2 | 2 | 2 | 1.4 | 2 |
| Rule3 | 3 | 3 | 3 | 3.23 | 3 |
| Rule4 | 4 | 4 | 4 | 3.45 | 4 |
| Rule5 | 5 | 5 | 5 | 2.2 | 5 |
| Rule6 | 6 | 6 | 6 | 1.4 | 6 |
| Rule7 | 7 | 7 | 7 | 3.23 | 7 |
| Rule8 | 8 | 8 | 8 | 3.45 | 8 |
| Rule9 | 9 | 9 | 9 | 2.3 | 9 |
| Rule10 | 10 | 10 | 10 | 3.5 | 10 |

### **List of rules for list of criterias (could be adapted in Properties)**

🡪 Block Name = **RULES\_LIST** 🡪 Options: **PAR=N[|N]\*** where each submitted N indicate a business criterion ID

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Criticality | Weight | Grade | Technical Criteria | Rule Name | # Violation | # Ok |
|  | 9 | 4.00 | Tech Criteria | Avoid direct instanciation | 12 | 200 |
|  | 2 | 1.50 | Tech Criteria 2 | Avoid second rule 2 | 4 | 31242 |

### **For a business criteria, List of technical criteria with grade**

🡪 Block Name = **CRITERIA\_GRADE** 🡪 Options: - **PAR=N** where N indicates the business criterion Id  
 - **COUNT**= number of results, if omitted, all results are returned

|  |  |  |
| --- | --- | --- |
| Technical Criteria Name | Grade | Evolution |
| Architecture - Multi-Layers and Data Access | 2.2 | 1.23 % |
| Architecture - Object-level Dependencies | 1.4 | 0.00 % |
| Architecture - OS and Platform Independence | 3.23 | 0.00 % |
| Architecture - Reuse | 3.45 | 0.00 % |
| Complexity - Algorithmic and Control Structure Complexity | 2.2 | 0.00 % |
| Complexity - Dynamic Instantiation | 1.4 | 0.00 % |
| Complexity - OO Inheritance and Polymorphism | 3.23 | 0.00 % |
| Complexity - SQL Queries | 3.45 | 0.00 % |
| Dead code (static) | 2.3 | 0.00 % |
| Programming Practices - Error and Exception Handling | 3.5 | 0.00 % |
| Programming Practices - OO Inheritance and Polymorphism | 1 | 0.00 % |
| Programming Practices - Structuredness | 2.2 | 0.00 % |
| Programming Practices - Unexpected Behaviour | 1.4 | 0.00 % |
| Secure Coding - Time and State | 3.23 | 0.00 % |
| Volume - Number of Components | 1 | 0.00 % |

### **Rule Name Details & Violation Count**

🡪 Block Name = **RULE\_NAME\_DESCRIPTION** 🡪 Options: **RULID=N** where N indicates the rule Id

|  |  |
| --- | --- |
| Lorem ipsum dolor sit amet, consectetur adipiscing elit (Sed et accumsan felis etiam pharetra semper suscipit) | |
| Description | Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed et accumsan felis. Etiam pharetra semper suscipit. Mauris hendrerit placerat lorem sit amet commodo. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Aliquam erat volutpat. |
| Remediation | Aliquam erat volutpat. Vestibulum quam ante, venenatis at bibendum vitae, viverra eget nulla. Donec pulvinar consequat varius. Morbi eget adipiscing lacus. Sed et libero odio, eget tempus massa. Phasellus venenatis commodo enim eget aliquet. Quisque posuere elit sed nunc aliquam eu ornare elit lacinia. Curabitur luctus, eros id venenatis lacinia, dolor libero tincidunt nibh, eget dapibus orci lectus pellentesque nisl. Ut quis velit est. |

### **Rule Name Details & Violation Count For Top Critical Violations Rules**

🡪 Block Name = **RULE\_NAME\_DESCRIPTION\_TOPCRITVIOL**  
 🡪 Options:

* COUNT=N where N indicate the number of the top N,
* PAR=BC-ID where BC-ID indicate the ID of the business criterion

PAR also supports several business criteria. Multiple business criteria are indicated as a list of BCID separated by “|”, for instance PAR=60011|60012

* IDX=i where i indicates the index of the specific rule wanted, for instance

i=0 🡪 1st rule

i=1 🡪 2nd rule

i=3 🡪 3rd rule…

|  |  |
| --- | --- |
| Rules Descriptions for Top Critical Violations for Business Criterion | |
| Rule Name | Lorem ipsum dolor sit amet, consectetur adipiscing elit (Sed et accumsan felis etiam pharetra semper suscipit) |
| Description | Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed et accumsan felis. Etiam pharetra semper suscipit. Mauris hendrerit placerat lorem sit amet commodo. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Aliquam erat volutpat. |
| Remediation | Aliquam erat volutpat. Vestibulum quam ante, venenatis at bibendum vitae, viverra eget nulla. Donec pulvinar consequat varius. Morbi eget adipiscing lacus. Sed et libero odio, eget tempus massa. Phasellus venenatis commodo enim eget aliquet. Quisque posuere elit sed nunc aliquam eu ornare elit lacinia. Curabitur luctus, eros id venenatis lacinia, dolor libero tincidunt nibh, eget dapibus orci lectus pellentesque nisl. Ut quis velit est. |

### **List of artefacts with violations to business criteria**

🡪 Block Name = **METRIC\_TOP\_ARTEFACT** 🡪 Options:

* **COUNT=N** where N indicate the number of the top N,
* **PAR=BC-ID** where BC-ID indicate the ID of the business criterion

**PAR** also supports several business criteria. Multiple business criteria are indicated as a list of BCID separated by “|”, for instance PAR=60011|60012

* **IDX=i** where i indicates the index of the specific rule wanted, for instance

i=0 🡪 1st rule

i=1 🡪 2nd rule

i=3 🡪 3rd rule…

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |
| --- | --- |
| Rules Descriptions for Top Critical Violations for Business Criterion | # of # |
| C:\SRC\MODULE\artefact1.cs |  |
| C:\SRC\MODULE\artefact2.cs |  |
| C:\SRC\MODULE\artefact3.cs |  |

### **How to link the two previous blocks**

🡪 Block Name = RULE\_NAME\_DESCRIPTION\_TOPCRITVIOL  
 🡪 Block Name = METRIC\_TOP\_ARTEFACT  
 🡪 Options:

* COUNT=N where N indicate the number of the top N,
* PAR=BC-ID where BC-ID indicate the ID of the business criterion

PAR also supports several business criteria. Multiple business criteria are indicated as a list of BCID separated by “|”, for instance PAR=60011|60012

* IDX=i where i indicates the index of the specific rule wanted, for instance

i=0 🡪 1st rule

i=1 🡪 2nd rule

i=3 🡪 3rd rule…

|  |  |
| --- | --- |
| Rules Descriptions for Top Critical Violations for Business Criterion | |
| Rule Name | Lorem ipsum dolor sit amet, consectetur adipiscing elit (Sed et accumsan felis etiam pharetra semper suscipit) |
| Description | Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed et accumsan felis. Etiam pharetra semper suscipit. Mauris hendrerit placerat lorem sit amet commodo. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Aliquam erat volutpat. |
| Remediation | Aliquam erat volutpat. Vestibulum quam ante, venenatis at bibendum vitae, viverra eget nulla. Donec pulvinar consequat varius. Morbi eget adipiscing lacus. Sed et libero odio, eget tempus massa. Phasellus venenatis commodo enim eget aliquet. Quisque posuere elit sed nunc aliquam eu ornare elit lacinia. Curabitur luctus, eros id venenatis lacinia, dolor libero tincidunt nibh, eget dapibus orci lectus pellentesque nisl. Ut quis velit est. |

|  |  |
| --- | --- |
| Rules Descriptions for Top Critical Violations for Business Criterion | # of # |
| C:\SRC\MODULE\artefact1.cs |  |
| C:\SRC\MODULE\artefact2.cs |  |
| C:\SRC\MODULE\artefact3.cs |  |

### **List of rules by Technical Criteria**

🡪 Block Name = **TECHNICAL\_CRITERIA\_RULES** 🡪 Options :  
 - **CNT=N** where N indicates the shown rule number; if this item missed, no   
limitation will be applied  
 - **TCID=N** where N indicates the technical criterion Id  
 - **BZID=N** where N indicates the business criterion Id  
 🡪 Behavior : if no new violation appeared on rule, rule description is not loaded.

|  |  |  |
| --- | --- | --- |
| Rule | Desc. | # Violations |
| Rule1 | Desc1 | 1 |
| Rule2 | Desc2 | 2 |
| Rule3 | Desc3 | 3 |

### **Top riskiest transactions**

🡪 Block Name = **TOP\_RISKIEST\_TRANSACTIONS** 🡪 Options:  
 - **SRC=PERF**|**ROB**|**SEC** : indicates the transaction type where top riskiest transactions will be searched   
 - **COUNT=N** where N indicates the top N number ; default value = 10

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |
| --- | --- |
| Artefact name | TwRI |
| Artefact one | Twri value 1 |
| Artefact two | Twri value 2 |

### **Top riskiest components**

🡪 Block Name = **TOP\_RISKIEST\_COMPONENTS** 🡪 Options :  
 - **SRC= PERF| ROB|SEC** : indicates the searched business criterion type  
 - **MOD=N** where N indicates the searched result will be applied on the module identified by this Id, and on the entire snapshot if this value isn’t indicated  
 - **COUNT=N** where N indicates the top N number ; default value = 10

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |
| --- | --- |
| Artefact name | PRI |
| Artefact one | PRI value 1 |
| Artefact two | PRI value 2 |

### **Action Plans**

🡪 Block Name = **ACTION\_PLANS** 🡪 Options: noneNote : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |
| --- | --- | --- |
| Rule | Still Violation (#) | New Violation (#) |
| Rule | 1 | 1 |
| Rule | 2 | 2 |
| Rule | 3 | 3 |
| Rule | 4 | 4 |
| Rule | 5 | 5 |
| Rule | 6 | 6 |
| Rule | 7 | 7 |
| Rule | 8 | 8 |
| Rule | 9 | 9 |
| Rule | 10 | 10 |

### **Cast Complexity**

🡪 Block Name = **CAST\_COMPLEXITY** 🡪 Options: none This component is only relevant on an engineering database.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cast complexity | Current total | Previous total | Evol. | Evol. % | % on total elements |
| Low | A2 | A1 | A2-A1 | (A2-A1)/A1 | 100\*A2/(A2+B2+C2+D2) |
| Average | B2 | B1 | B2-B1 | (B2-B1)/B1 | 100\*B2/(A2+B2+C2+D2) |
| High | C2 | C1 | C2-C1 | (C2-C1)/C1 | 100\*C2/(A2+B2+C2+D2) |
| Very High | D2 | D1 | D2-D1 | (D2-D1)/D1 | 100\*D2/(A2+B2+C2+D2) |

### **Cast Distribution**

🡪 Block Name = **CAST\_DISTRIBUTION** 🡪 Options: ***PAR=ID*** where ID is the distribution ID

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Distribution | Current total | Previous total | Evol. | Evol. % | % on total elements |
| Low | A2 | A1 | A2-A1 | (A2-A1)/A1 | 100\*A2/(A2+B2+C2+D2) |
| Average | B2 | B1 | B2-B1 | (B2-B1)/B1 | 100\*B2/(A2+B2+C2+D2) |
| High | C2 | C1 | C2-C1 | (C2-C1)/C1 | 100\*C2/(A2+B2+C2+D2) |
| Very High | D2 | D1 | D2-D1 | (D2-D1)/D1 | 100\*D2/(A2+B2+C2+D2) |

### **Cast High and Very High Complexity**

🡪 Block Name = **CAST\_HIGH\_COMPLEXITY** 🡪 Options: none This component is only relevant on an engineering database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cast complexity | Current total | Previous total | Evol. | % on total elements |
| High and Very High Complexity | C2+D2 | C1+D1 | (C2+D2)-(C1+D1) | 100\*(C2+D2)/(A2+B2+C2+D2) |

### **Cast High and Very High Distribution**

🡪 Block Name = **CAST\_HIGH\_DISTRIBUTION** 🡪 Options: ***PAR*=*ID*** where ID is the distribution ID

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cyclomatic Complexity Distribution | Current total | Previous total | Evol. | % on total elements |
| High and Very High Complexity | C2+D2 | C1+D1 | (C2+D2)-(C1+D1) | 100\*(C2+D2)/(A2+B2+C2+D2) |

### **Module list**

🡪 Block Name = **MODULE\_LIST** 🡪 Options: HEADER=SHORT (here HEADER=SHORT) Indicates that short headers will be shown, obviously long headers will be shown

|  |
| --- |
| Modules |
| My Module 1 |
| Their Module 2 |

### **TQI: Technical Quality Index grade & evolution**

🡪 Block Name = **TQI** 🡪 Options: None

|  |  |  |
| --- | --- | --- |
| Statisticss | Current | Previous |
| - | **-** | **-** |

### **TQI by module**

🡪 Block Name = **TQI\_BY\_MODULE**🡪 Options: **HEADER=SHORT** (here HEADER=SHORT) Indicates that short headers will be shown, obviously long headers will be shown

|  |  |  |  |
| --- | --- | --- | --- |
| Module | Current QI | Previous QI | Variation |
| Module | - | - | - |
| Module | - | - | - |
| Module | - | - | - |
| Module | - | - | - |

### **Complexity with violations: Statistics about Artifacts – CAST Complexity & Violations**

🡪 Block Name = **CAST\_COMPLEXITY\_WITH\_VIOL**🡪 Options: **HEADER=SHORT** (here HEADER=SHORT) Indicates that short headers will be shown, obviously long headers will be shown

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |
| --- | --- | --- |
| Module | Artifacts | W/violations |
| Externe | - | - |
| High |  | - |
| Average | - | - |
| Low | - | - |

### **Critical Violations by Module, header can be changed (short, long)**

🡪 Block Name = **CRITICAL\_VIOL\_BY\_MODULE**  
 🡪 Options: **HEADER=SHORT** (indicates that short headers will be shown, obviously long header will be shown)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | TQI | Robu | Efcy | Secu | Trans | Chang |
| Curr. Vers |  |  |  |  |  |  |
| Module 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  |  |  |  |  |  |  |
| Prev. Vers |  |  |  |  |  |  |
| Module 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Module 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  |  |  |  |  |  |  |
| Variation |  |  |  |  |  |  |
| Module 1 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |
| Module 2 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |
| Module 3 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |
| Module 4 | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % | 0.00 % |

### **Compliance to Objectives**

🡪 Block Name = **COMPLIANCE\_TO\_OBJ\_TABLE**🡪 Options: **HEADER=SHORT** (here HEADER=SHORT) Indicates that short headers will be shown, obviously long headers will be shown

**Compliance to objectives. This component is based on:**

* **Objectives – list of critical rules**
* **Achievement : if there is 0 violation for a critical rule**
* **Achievement ratio: # critical rules with 0 viol. / # critical rules**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Module | Objectives | Achievement | Achievement ratio | |
| Entire Application (whole code) | - | -- | | - |
| Last Delivery (new and modified) | - | - | | - |

### **Technical debt (If selected « previous snapshot » in Report Generator interface is not the n-1 version, results will sum the Technical Debt Added and removed)**

🡪 Block Name = **TECHNICAL\_DEBT**🡪 Options: **HEADER=SHORT** (here HEADER=SHORT) Indicates that short headers will be shown, obviously long headers will be shown

|  |  |
| --- | --- |
| Name | Value |
| Technical debt | - |
| Technical Debt added | - |
| Echnical Debt removed | - |

### **List of All Versions**

🡪 Block Name = **LIST\_OF\_ALL\_VERSIONS** 🡪 Options: **COUNT=N** where N indicate the number of the top N (no limit by default: all versions will be shown)

|  |  |
| --- | --- |
| Version | Date |
| V3 | 1/1/2015 |
| V2 | 1/1/2014 |
| V1 | 1/1/2013 |

### **Critical Violations by Application**

🡪 Block Name = **CRITICAL\_VIOL\_BY\_APPLICATION** 🡪 Options:

* **HEADER=SHORT** (by default HEADER=SHORT)
* **SHOW\_PREVIOUS=1** (by default SHOW\_PREVIOUS=0)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | TQI | Robu. | Efcy | Secu. | Trans. | Chng. |
| Version actuelle | 0 | 0 | 0 | 0 | 0 | 0 |
| Ajoutées | +0 | +0 | +0 | +0 | +0 | +0 |
| Supprimées | -0 | -0 | -0 | -0 | -0 | -0 |

### **IFPUG Functions**

🡪 Block Name = **IFPUG\_FUNCTIONS** 🡪 Options:

* **COUNT=N** where N indicate the number of the top N (default value is all rows)
* **TYPE=T** where T is ‘TF’ for transactional functions, or ‘DF’ for data functions. If TYPE is not present (default), both types will be displayed

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Element Type | Object Name | # of FPs | FP Details | Object Type | Nom du module | Technology |
| Data Function | Object Name | 7 | DET: 1, RET: 1, ILF: 7 (Internal) | NodeJS Mongoose model | Module | HTML5 |

### **Violation Summary per application or modules**

The following block provides violation information (grades, counts, compliance ratios…) for critical and/or non-critical rules, for the whole application or per module

[This block is configured from the Alt text description field or the table properties]

🡪 Block Name = **VIOLATION\_SUMMARY**🡪 Options:  
 - **MODULES=1|0** to display violations for the whole application (=0 by default) or per modules (=1)  
 - **CRITICAL=1|0** to include critical violations (=1 by default) or not (=0)  
 - **NONCRITICAL=1|0** to include the non-critical violations (=1) or not (=0 by default)  
 - **GRADE=1|0** to show (=1 by default) or hide (=0) the “Grade” column - **TOTAL=1|0** to show (=1 by default) or hide (=0) the “Total Checks” column  
 - **FAILED=1|0** to show (=1) or hide (=0 by default) the “Failed Checks” column  
 - **SUCCESSFUL=1|0** to show (=1) or hide (=0 by default) the “Successful Checks” column  
 - **ADDEDREMOVED=1|0** to show (=1) or hide (=0 by default) the “Added” and “Removed” columns  
 - **COMPLIANCE=1|0** to show (=1) or hide (=0 by default) the “Compliance Ratio” column

- **COUNT**=-1|N to display only N results, or all results if -1 (5 by default)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Rule Name | Grade | #Violations | Added | Removed | Critical |
| Rule 1 | 2.9 | 432 | 3 | 1 | X |
| Rule 2 | 3.0 | 21 | 2 | 1 | X |
| Rule 3 | 3.1 | 1 | 1 | 0 | X |

### **List of violations for a quality rule**

🡪 Block Name = **QUALITY\_RULE\_VIOLATIONS** 🡪 Options :  
 - **BCID=** The Id of the business criterion. If this id correspond to efficiency (60014), robustness (60013), or security (60016), the propagatedRiskIndex is displayed. By default, BCID = 60013  
 - **ID=** The Id of the quality rule for which you want to display the list of violations. By default, ID=7788 (Avoid empty catch block)  
 - **COUNT=N** where N indicates the top N number ; default value = 10

- **NAME=FULL|SHORT** to display short name or full name of objects (full name by default)

- **SNAPSHOT=CURRENT|PREVIOUS** to select from which snapshot we take results; default is Current

If there is no previous snapshot, column Status is not displayed

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |
| --- | --- | --- |
| Object name | PRI | Status |
| Artefact one | PRI value 1 | updated |
| Artefact two | PRI value 2 | added |

### **List of violations for a quality rule with bookmarks NEW**

🡪 Block Name = **QUALITY\_RULE\_VIOLATIONS\_BOOKMARKS** 🡪 Options :  
 - **ID=** The Id of the quality rule for which you want to display the list of violations. By default, ID=7788 (Avoid empty catch block)  
 - **COUNT=N** where N indicates the top number of violations ; by default 5 (-1 correspond to all violations)

- **NB\_BOOKMARKS=N** where N indicates the top number of bookmarks by violation ; by default 5 (-1 correspond to all bookmarks for each violations)

- **NAME=FULL|SHORT** to display short name or full name of objects (full name by default)

- **SNAPSHOT=CURRENT|PREVIOUS** to select from which snapshot we take results; default is Current

If there is no previous snapshot, status is not displayed

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |
| --- |
| Object name |
| Violation #1 |
| …. |

### **List of violations in action plan**

🡪 Block Name = **ACTION\_PLAN\_VIOLATIONS** 🡪 Options :  
 - **COUNT=N|ALL** where N indicates the top N number ; default value = 10 (ALL for all violations)

- **NAME=FULL|SHORT** to display short name or full name of objects (full name by default)

- **FILTER=ADDED|SOLVED|PENDING|ALL** to filter the list by the remedial action status; default is ALL

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Rule Name | Object name | Comment | Priority | Status | Last Updated |
| Rule 1 | Artefact one | Comment 1 | Low | updated | 01/01/2010 |
| Rule 2 | Artefact two | Comment 2 | Extreme | added | 02/02/2012 |

### **List of violations for health factor**

🡪 Block Name = **VIOLATIONS\_LIST** 🡪 Options :  
 - **BCID=** list of ids of business criterion, separated by | : **60011|60012|60013|60014|60016|60017** one or several ; default value = 60016 (Security)

- **COUNT=N|ALL** where N indicates the top N number ; default value = 10 (ALL for all violations)

- **NAME=FULL|SHORT** to display short name or full name of objects (full name by default)

- **FILTER=ADDED|UNCHANGED|UPDATED|ALL** to filter the list by the violation status; default is ALL

- **VIOLATIONS=CRITICAL|ALL** by default, only CRITICAL violations are listed

-  **MODULE=ModuleName**, parameter used to restrict the list for one module, by default violation are listed for the application

- **TECHNOLOGIES=techno1|techno2**, parameter used to restrict the list of violations, by default all technologies

Note : This component is only relevant on an engineering database. It is empty on an analytics database.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Violation Status | PRI | Exclusion Status | Action Status | Rule Name | Business Criterion | Object Name | Object Status |
| Added | **1,236** | n/a | Pending | Rule 1 | Security | Object 1 | updated |
| Unchanged | **12** | Added | n/a | Rule 2 | Security | Object 2 | unchanged |

### **Mapping Name/ Id indicator**

The following block provides numbers to use for ID values.

🡪 Block Name = **ID\_NAME\_INDICATOR\_MAPPING**

|  |  |
| --- | --- |
| Name | Id |
| TechnicalQualityIndex | 60017 |
| Security | 60016 |
| Robustness | 60013 |
| Performance | 60014 |
| Changeability | 60012 |
| Transferability | 60011 |
| ProgrammingPractices | 66031 |
| ArchitecturalDesign | 66032 |
| Documentation | 66033 |
| SEIMaintainability | 60015 |
| CostComplexityDistribution | 67001 |
| CyclomaticComplexityDistribution | 65501 |
| OOComplexityDistribution | 65701 |
| SQLComplexityDistribution | 65801 |
| CouplingDistribution | 65350 |
| ClassFanOutDistribution | 66020 |
| ClassFanInDistribution | 66021 |
| SizeDistribution | 65105 |