

# Method Metrics

## References

- [jqassistant](#)
- [Neo4j Python Driver](#)

## Effective Method Line Count

### Table 1a - Effective method line count distribution

This table shows the distribution of the effective method line count per artifact. For each artifact the number of methods with effective line count = 1,2,3,... is shown to get an overview of how line counts are distributed over methods.

Only the 15 artifacts with the highest method count and their effective method line count distribution (limited by 40) is shown here. The whole table can be found in the CSV report

`Effective_Method_Line_Count_Distribution`.

Have a look below to find out which packages and methods have the highest effective lines of code.

| artifactName       | axon-messaging-4.9.3.jar | axon-eventsourcing-4.9.3.jar | axon-modelling-4.9.3.jar | axon-test-4.9.3.jar | axon-configuration-4.9.3.jar | axon-disruptor-4.9.3.jar |
|--------------------|--------------------------|------------------------------|--------------------------|---------------------|------------------------------|--------------------------|
| effectiveLineCount |                          |                              |                          |                     |                              |                          |
| 1                  | 2820                     | 573                          | 532                      | 279                 | 310                          | 84                       |
| 2                  | 823                      | 204                          | 158                      | 170                 | 146                          | 31                       |
| 3                  | 674                      | 127                          | 141                      | 64                  | 34                           | 30                       |
| 4                  | 269                      | 64                           | 57                       | 49                  | 42                           | 8                        |
| 5                  | 220                      | 39                           | 45                       | 24                  | 16                           | 5                        |
| 6                  | 161                      | 34                           | 45                       | 18                  | 17                           | 6                        |
| 7                  | 103                      | 32                           | 24                       | 20                  | 3                            | 2                        |
| 8                  | 80                       | 12                           | 10                       | 11                  | 7                            | 0                        |
| 9                  | 76                       | 17                           | 17                       | 10                  | 8                            | 4                        |
| 10                 | 46                       | 8                            | 8                        | 4                   | 6                            | 3                        |
| 11                 | 45                       | 2                            | 8                        | 9                   | 5                            | 1                        |
| 12                 | 41                       | 5                            | 2                        | 9                   | 1                            | 1                        |
| 13                 | 26                       | 2                            | 9                        | 5                   | 2                            | 1                        |
| 14                 | 17                       | 3                            | 3                        | 3                   | 1                            | 2                        |
| 15                 | 9                        | 2                            | 5                        | 2                   | 0                            | 0                        |
| 16                 | 8                        | 6                            | 2                        | 4                   | 0                            | 0                        |
| 17                 | 10                       | 0                            | 2                        | 3                   | 1                            | 1                        |
| 18                 | 9                        | 3                            | 0                        | 3                   | 1                            | 1                        |
| 19                 | 6                        | 0                            | 1                        | 0                   | 1                            | 1                        |
| 20                 | 5                        | 2                            | 2                        | 1                   | 0                            | 0                        |
| 21                 | 7                        | 2                            | 1                        | 1                   | 1                            | 0                        |
| 22                 | 2                        | 1                            | 2                        | 1                   | 0                            | 1                        |
| 23                 | 5                        | 2                            | 0                        | 1                   | 1                            | 0                        |
| 24                 | 3                        | 1                            | 1                        | 1                   | 0                            | 1                        |
| 25                 | 2                        | 1                            | 0                        | 0                   | 0                            | 0                        |
| 26                 | 2                        | 0                            | 1                        | 1                   | 1                            | 0                        |
| 28                 | 2                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 29                 | 0                        | 0                            | 0                        | 1                   | 0                            | 0                        |
| 30                 | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 31                 | 1                        | 0                            | 0                        | 1                   | 0                            | 0                        |
| 32                 | 1                        | 0                            | 0                        | 0                   | 0                            | 1                        |
| 33                 | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 34                 | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 36                 | 2                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 38                 | 0                        | 0                            | 1                        | 0                   | 0                            | 0                        |
| 43                 | 0                        | 0                            | 0                        | 0                   | 1                            | 0                        |
| 44                 | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 45                 | 0                        | 0                            | 0                        | 1                   | 0                            | 0                        |
| 50                 | 1                        | 0                            | 0                        | 0                   | 1                            | 0                        |
| 63                 | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |

Table 1b - Effective method line count distribution (normalized)

The table shown here only includes the first 40 rows which typically represents the most significant entries. Have a look below to find out which packages and methods have the highest effective lines of code.

| artifactName       | axon-messaging-4.9.3.jar | axon-eventsourcing-4.9.3.jar | axon-modelling-4.9.3.jar | axon-test-4.9.3.jar | axon-configuration-4.9.3.jar | axon-disruptor-4.9.3.jar |
|--------------------|--------------------------|------------------------------|--------------------------|---------------------|------------------------------|--------------------------|
| effectiveLineCount |                          |                              |                          |                     |                              |                          |
| 1                  | 51.431698                | 50.175131                    | 49.396472                | 40.086207           | 51.155116                    | 45.652174                |
| 2                  | 15.010031                | 17.863398                    | 14.670381                | 24.425287           | 24.092409                    | 16.847826                |
| 3                  | 12.292541                | 11.120841                    | 13.091922                | 9.195402            | 5.610561                     | 16.304348                |
| 4                  | 4.906073                 | 5.604203                     | 5.292479                 | 7.040230            | 6.930693                     | 4.347826                 |
| 5                  | 4.012402                 | 3.415061                     | 4.178273                 | 3.448276            | 2.640264                     | 2.717391                 |
| 6                  | 2.936349                 | 2.977233                     | 4.178273                 | 2.586207            | 2.805281                     | 3.260870                 |
| 7                  | 1.878534                 | 2.802102                     | 2.228412                 | 2.873563            | 0.495050                     | 1.086957                 |
| 8                  | 1.459055                 | 1.050788                     | 0.928505                 | 1.580460            | 1.155116                     | 0.000000                 |
| 9                  | 1.386102                 | 1.488616                     | 1.578459                 | 1.436782            | 1.320132                     | 2.173913                 |
| 10                 | 0.838957                 | 0.700525                     | 0.742804                 | 0.574713            | 0.990099                     | 1.630435                 |
| 11                 | 0.820719                 | 0.175131                     | 0.742804                 | 1.293103            | 0.825083                     | 0.543478                 |
| 12                 | 0.747766                 | 0.437828                     | 0.185701                 | 1.293103            | 0.165017                     | 0.543478                 |
| 13                 | 0.474193                 | 0.175131                     | 0.835655                 | 0.718391            | 0.330033                     | 0.543478                 |
| 14                 | 0.310049                 | 0.262697                     | 0.278552                 | 0.431034            | 0.165017                     | 1.086957                 |
| 15                 | 0.164144                 | 0.175131                     | 0.464253                 | 0.287356            | 0.000000                     | 0.000000                 |
| 16                 | 0.145906                 | 0.525394                     | 0.185701                 | 0.574713            | 0.000000                     | 0.000000                 |
| 17                 | 0.182382                 | 0.000000                     | 0.185701                 | 0.431034            | 0.165017                     | 0.543478                 |
| 18                 | 0.164144                 | 0.262697                     | 0.000000                 | 0.431034            | 0.165017                     | 0.543478                 |
| 19                 | 0.109429                 | 0.000000                     | 0.092851                 | 0.000000            | 0.165017                     | 0.543478                 |
| 20                 | 0.091191                 | 0.175131                     | 0.185701                 | 0.143678            | 0.000000                     | 0.000000                 |
| 21                 | 0.127667                 | 0.175131                     | 0.092851                 | 0.143678            | 0.165017                     | 0.000000                 |
| 22                 | 0.036476                 | 0.087566                     | 0.185701                 | 0.143678            | 0.000000                     | 0.543478                 |
| 23                 | 0.091191                 | 0.175131                     | 0.000000                 | 0.143678            | 0.165017                     | 0.000000                 |
| 24                 | 0.054715                 | 0.087566                     | 0.092851                 | 0.143678            | 0.000000                     | 0.543478                 |
| 25                 | 0.036476                 | 0.087566                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 26                 | 0.036476                 | 0.000000                     | 0.092851                 | 0.143678            | 0.165017                     | 0.000000                 |
| 28                 | 0.036476                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 29                 | 0.000000                 | 0.000000                     | 0.000000                 | 0.143678            | 0.000000                     | 0.000000                 |
| 30                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 31                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.143678            | 0.000000                     | 0.000000                 |
| 32                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.543478                 |
| 33                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 34                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 36                 | 0.036476                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 38                 | 0.000000                 | 0.000000                     | 0.092851                 | 0.000000            | 0.000000                     | 0.000000                 |
| 43                 | 0.000000                 | 0.000000                     | 0.000000                 | 0.000000            | 0.165017                     | 0.000000                 |
| 44                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 45                 | 0.000000                 | 0.000000                     | 0.000000                 | 0.143678            | 0.000000                     | 0.000000                 |
| 50                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.165017                     | 0.000000                 |
| 63                 | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |

Table 1b Chart 1 - Effective method line count distribution (normalized)

<Figure size 640x480 with 0 Axes>



Table 1c - Top 30 packages with highest effective line counts

The following table shows the top 30 packages with the highest effective lines of code. The whole table can be found in the CSV report [Effective\\_lines\\_of\\_method\\_code\\_per\\_package](#) .

|    | artifactName             | fullPackageName                                   | linesInPackage | methodCount | maxLinesMethod | maxLinesMethodName                                |
|----|--------------------------|---|----------------|-------------|----------------|---|
| 0  | axon-messaging-4.9.3     | org.axonframework.eventhandling                   | 2333           | 838         | 64             | processBatch                                      |
| 1  | axon-configuration-4.9.3 | org.axonframework.config                          | 1587           | 606         | 50             | <init>  |
| 2  | axon-messaging-4.9.3     | org.axonframework.eventhandling.pooled            | 1021           | 333         | 78             | run   |
| 3  | axon-test-4.9.3          | org.axonframework.test.aggregate                  | 951            | 249         | 45             | appendEventOverview                               |
| 4  | axon-messaging-4.9.3     | org.axonframework.queryhandling                   | 927            | 381         | 36             | doQuery   |
| 5  | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.jdbc   | 849            | 249         | 31             | convertToLetter                                   |
| 6  | axon-modelling-4.9.3     | org.axonframework.modelling.command               | 824            | 329         | 17             | lambdainitializeHandler7                          |
| 7  | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore        | 712            | 264         | 21             | peekPrivateStream                                 |
| 8  | axon-messaging-4.9.3     | org.axonframework.messaging.annotation            | 673            | 239         | 23             | <init>  |
| 9  | axon-modelling-4.9.3     | org.axonframework.modelling.command.inspection    | 637            | 218         | 26             | inspectFieldsAndMethods                           |
| 10 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing                   | 623            | 251         | 20             | doScheduleSnapshot                                |
| 11 | axon-disruptor-4.9.3     | org.axonframework.disruptor.commandhandling       | 605            | 184         | 32             | <init>  |
| 12 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.leg... | 573            | 187         | 25             | fetchTrackedEvents                                |
| 13 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.jdbc   | 568            | 236         | 24             | <init>  |
| 14 | axon-messaging-4.9.3     | org.axonframework.serialization                   | 537            | 181         | 22             | <init>  |
| 15 | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.jpa    | 522            | 132         | 28             | equals  |
| 16 | axon-messaging-4.9.3     | org.axonframework.common                          | 501            | 144         | 24             | getExactDirectSuperTypesOfParameterizedTypeOrC... |
| 17 | axon-test-4.9.3          | org.axonframework.test.saga                       | 492            | 168         | 29             | <init>  |
| 18 | axon-modelling-4.9.3     | org.axonframework.modelling.saga                  | 490            | 194         | 22             | handle  |
| 19 | axon-messaging-4.9.3     | org.axonframework.commandhandling.gateway         | 488            | 174         | 50             | createGateway                                     |
| 20 | axon-messaging-4.9.3     | org.axonframework.commandhandling.distributed     | 477            | 175         | 23             | dispatch  |
| 21 | axon-messaging-4.9.3     | org.axonframework.eventhandling.tokenstore.jdbc   | 430            | 130         | 26             | updateToken                                       |
| 22 | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.leg... | 401            | 97          | 21             | convert   |
| 23 | axon-messaging-4.9.3     | org.axonframework.commandhandling                 | 377            | 169         | 13             | <init>  |
| 24 | axon-modelling-4.9.3     | org.axonframework.modelling.saga.repository.jdbc  | 374            | 84          | 38             | updateSaga  |
| 25 | axon-messaging-4.9.3     | org.axonframework.messaging.unitofwork            | 363            | 129         | 32             | executeWithResult                                 |
| 26 | axon-test-4.9.3          | org.axonframework.test.matchers                   | 351            | 108         | 21             | matchingFields                                    |

|    | artifactName             | fullPackageName                                | linesInPackage | methodCount | maxLinesMethod | maxLinesMethodName |
|----|--------------------------|--|----------------|-------------|----------------|--------------------|
| 27 | axon-messaging-4.9.3     | org.axonframework.messaging                    | 348            | 156         | 13             | defaultHeaders     |
| 28 | axon-messaging-4.9.3     | org.axonframework.deadline.dbscheduler         | 321            | 103         | 18             | execute            |
| 29 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.jpa | 318            | 101         | 23             | fetchTrackedEvents |

## Table 1d - Top 30 methods with the highest effective line count

The following table shows the top 30 methods with the highest effective lines of code. The whole table can be found in the CSV report `Effective_lines_of_method_code_per_package`.

| index | artifactName             | fullPackageName                                   | maxLinesMethodType                                 | maxLinesMethod                             |
|-------|--------------------------|---|--|--|
| 0     | axon-messaging-4.9.3     | org.axonframework.eventhandling.pooled            | Coordinator\$CoordinationTask                      |  |
| 1     | axon-messaging-4.9.3     | org.axonframework.eventhandling                   | TrackingEventProcessor                             | process                                    |
| 2     | axon-messaging-4.9.3     | org.axonframework.commandhandling.gateway         | CommandGatewayFactory                              | createGateway                              |
| 3     | axon-configuration-4.9.3 | org.axonframework.config                          | DefaultConfigurer                                  |  |
| 4     | axon-test-4.9.3          | org.axonframework.test.aggregate                  | Reporter   | appendEventOn                              |
| 5     | axon-messaging-4.9.3     | org.axonframework.deadline.quartz                 | DeadlineJob  | execute                                    |
| 6     | axon-modelling-4.9.3     | org.axonframework.modelling.saga.repository.jdbc  | JdbcSagaStore                                      | update                                     |
| 7     | axon-messaging-4.9.3     | org.axonframework.queryhandling                   | SimpleQueryBus                                     | do   |
| 8     | axon-messaging-4.9.3     | org.axonframework.messaging.deadletter            | InMemorySequencedDeadLetterQueue                   | for  |
| 9     | axon-messaging-4.9.3     | org.axonframework.messaging.unitofwork            | BatchingUnitOfWork                                 | executeWith                                |
| 10    | axon-disruptor-4.9.3     | org.axonframework.disruptor.commandhandling       | DisruptorCommandBus                                |  |
| 11    | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.jdbc   | DefaultDeadLetterJdbcConverter                     | convertTo                                  |
| 12    | axon-test-4.9.3          | org.axonframework.test.saga                       | SagaTestFixture                                    |  |
| 13    | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.jpa    | DeadLetterEventEntry                               |  |
| 14    | axon-modelling-4.9.3     | org.axonframework.modelling.command.inspection    | AnnotatedAggregateMetaModelFactory\$AnnotatedAg... | inspectFieldsAndM                          |
| 15    | axon-messaging-4.9.3     | org.axonframework.eventhandling.tokenstore.jdbc   | JdbcTokenStore                                     | update                                     |
| 16    | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.leg... | JpaEventStorageEngine                              | fetchTracked                               |
| 17    | axon-messaging-4.9.3     | org.axonframework.deadline                        | SimpleDeadlineManager\$DeadlineTask                |  |
| 18    | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.jdbc   | JdbcEventStorageEngine                             |  |
| 19    | axon-messaging-4.9.3     | org.axonframework.common                          | TypeReflectionUtils                                | getExactDirectSuperTypesOfParameterizedTyp |
| 20    | axon-messaging-4.9.3     | org.axonframework.commandhandling.distributed     | DistributedCommandBus                              | do   |
| 21    | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.jpa    | JpaEventStorageEngine                              | fetchTracked                               |
| 22    | axon-messaging-4.9.3     | org.axonframework.messaging.annotation            | AnnotatedMessageHandlingMember                     |  |
| 23    | axon-messaging-4.9.3     | org.axonframework.deadline.jobrunr                | JobRunrDeadlineManager                             | execute                                    |
| 24    | axon-modelling-4.9.3     | org.axonframework.modelling.saga.repository       | AssociationValueMap\$AssociationValueComparator    | co   |
| 25    | axon-modelling-4.9.3     | org.axonframework.modelling.saga                  | AbstractSagaManager                                |  |
| 26    | axon-messaging-4.9.3     | org.axonframework.serialization                   | AbstractXStreamSerializer                          |  |

|    | index | artifactName             | fullPackageName                                   | maxLinesMethodType                 | maxLinesMetho |
|----|-------|--------------------------|---|------------------------------------|---------------|
| 27 | 26    | axon-test-4.9.3          | org.axonframework.test.matchers                   | DeepEqualsMatcher                  | matchin       |
| 28 | 22    | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.leg... | EventMessageDeadLetterJpaConverter |               |
| 29 | 7     | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore        | EmbeddedEventStore\$EventConsumer  | peekPrivate   |

## Cyclomatic Complexity

Table 2a - Cyclomatic method complexity distribution

This table shows the distribution of the cyclomatic complexity of methods per artifact. For each artifact the number of methods with the cyclomatic complexity = 1,2,3,... is shown to get an overview of how cyclomatic complexity is distributed over methods.

Only the 15 artifacts with the highest method count sum and their cyclomatic method complexity distribution (limited by 40) is shown here. The whole table can be found in the CSV report

[Cyclomatic\\_Method\\_Complexity\\_Distribution](#) .

Have a look below to find out which packages and methods have the highest effective lines of code.

| artifactName         | axon-messaging-4.9.3.jar | axon-eventsourcing-4.9.3.jar | axon-modelling-4.9.3.jar | axon-test-4.9.3.jar | axon-configuration-4.9.3.jar | axon-disruptor-4.9.3.jar |
|----------------------|--------------------------|------------------------------|--------------------------|---------------------|------------------------------|--------------------------|
| cyclomaticComplexity |                          |                              |                          |                     |                              |                          |
| 1                    | 4414                     | 943                          | 895                      | 519                 | 542                          | 146                      |
| 2                    | 462                      | 94                           | 75                       | 60                  | 37                           | 20                       |
| 3                    | 283                      | 53                           | 38                       | 60                  | 17                           | 5                        |
| 4                    | 140                      | 24                           | 29                       | 22                  | 5                            | 4                        |
| 5                    | 74                       | 9                            | 24                       | 12                  | 3                            | 3                        |
| 6                    | 46                       | 4                            | 10                       | 9                   | 0                            | 2                        |
| 7                    | 20                       | 7                            | 2                        | 4                   | 2                            | 2                        |
| 8                    | 12                       | 7                            | 1                        | 3                   | 0                            | 2                        |
| 9                    | 7                        | 0                            | 2                        | 1                   | 0                            | 0                        |
| 10                   | 4                        | 0                            | 0                        | 1                   | 0                            | 0                        |
| 11                   | 9                        | 0                            | 0                        | 2                   | 0                            | 0                        |
| 12                   | 4                        | 0                            | 0                        | 2                   | 0                            | 0                        |
| 13                   | 2                        | 1                            | 0                        | 1                   | 0                            | 0                        |
| 14                   | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 15                   | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 16                   | 0                        | 0                            | 1                        | 0                   | 0                            | 0                        |
| 17                   | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 21                   | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 22                   | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |
| 40                   | 1                        | 0                            | 0                        | 0                   | 0                            | 0                        |

Table 2b - Cyclomatic method complexity distribution (normalized)

The table shown here only includes the first 40 rows which typically represents the most significant entries. Have a look below to find out which packages and methods have the highest effective lines of



code.

| artifactName         | axon-messaging-4.9.3.jar | axon-eventsourcing-4.9.3.jar | axon-modelling-4.9.3.jar | axon-test-4.9.3.jar | axon-configuration-4.9.3.jar | axon-disruptor-4.9.3.jar |
|----------------------|--------------------------|------------------------------|--------------------------|---------------------|------------------------------|--------------------------|
| cyclomaticComplexity |                          |                              |                          |                     |                              |                          |
| 1                    | 80.503374                | 82.574431                    | 83.101207                | 74.568966           | 89.438944                    | 79.347826                |
| 2                    | 8.426044                 | 8.231173                     | 6.963788                 | 8.620690            | 6.105611                     | 10.869565                |
| 3                    | 5.161408                 | 4.640981                     | 3.528319                 | 8.620690            | 2.805281                     | 2.717391                 |
| 4                    | 2.553347                 | 2.101576                     | 2.692665                 | 3.160920            | 0.825083                     | 2.173913                 |
| 5                    | 1.349626                 | 0.788091                     | 2.228412                 | 1.724138            | 0.495050                     | 1.630435                 |
| 6                    | 0.838957                 | 0.350263                     | 0.928505                 | 1.293103            | 0.000000                     | 1.086957                 |
| 7                    | 0.364764                 | 0.612960                     | 0.185701                 | 0.574713            | 0.330033                     | 1.086957                 |
| 8                    | 0.218858                 | 0.612960                     | 0.092851                 | 0.431034            | 0.000000                     | 1.086957                 |
| 9                    | 0.127667                 | 0.000000                     | 0.185701                 | 0.143678            | 0.000000                     | 0.000000                 |
| 10                   | 0.072953                 | 0.000000                     | 0.000000                 | 0.143678            | 0.000000                     | 0.000000                 |
| 11                   | 0.164144                 | 0.000000                     | 0.000000                 | 0.287356            | 0.000000                     | 0.000000                 |
| 12                   | 0.072953                 | 0.000000                     | 0.000000                 | 0.287356            | 0.000000                     | 0.000000                 |
| 13                   | 0.036476                 | 0.087566                     | 0.000000                 | 0.143678            | 0.000000                     | 0.000000                 |
| 14                   | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 15                   | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 16                   | 0.000000                 | 0.000000                     | 0.092851                 | 0.000000            | 0.000000                     | 0.000000                 |
| 17                   | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 21                   | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 22                   | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |
| 40                   | 0.018238                 | 0.000000                     | 0.000000                 | 0.000000            | 0.000000                     | 0.000000                 |

Table 2b Chart 1 - Cyclomatic method complexity distribution (normalized)

<Figure size 640x480 with 0 Axes>



Table 2c - Top 30 packages with highest cyclomatic complexity

The following table shows the top 30 packages with the highest cyclomatic complexity. The whole table can be found in the CSV report `Effective_lines_of_method_code_per_package`.

|    | artifactName             | fullPackageName                                   | complexityInPackage | methodCount | maxComplexity | maxComplexityMethod                                |
|----|--------------------------|---|---------------------|-------------|---------------|--|
| 0  | axon-messaging-4.9.3     | org.axonframework.eventhandling                   | 1276                | 838         | 21            | processBatch                                       |
| 1  | axon-configuration-4.9.3 | org.axonframework.config                          | 716                 | 606         | 7             | invokeLifecycleHandler                             |
| 4  | axon-messaging-4.9.3     | org.axonframework.queryhandling                   | 477                 | 381         | 11            | doQuery  |
| 2  | axon-messaging-4.9.3     | org.axonframework.eventhandling.pooled            | 449                 | 333         | 22            | run  |
| 6  | axon-modelling-4.9.3     | org.axonframework.modelling.command               | 445                 | 329         | 9             | resolveTarget                                      |
| 3  | axon-test-4.9.3          | org.axonframework.test.aggregate                  | 434                 | 249         | 13            | ensureValuesEqual                                  |
| 7  | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore        | 397                 | 264         | 13            | hasNext  |
| 8  | axon-messaging-4.9.3     | org.axonframework.messaging.annotation            | 386                 | 239         | 14            | handle   |
| 9  | axon-modelling-4.9.3     | org.axonframework.modelling.command.inspection    | 339                 | 218         | 9             | prepareHandler                                     |
| 10 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing                   | 325                 | 251         | 8             | doScheduleSnapshot                                 |
| 5  | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.jdbc   | 304                 | 249         | 12            | equi   |
| 16 | axon-messaging-4.9.3     | org.axonframework.common                          | 301                 | 144         | 9             | getExactDirectSuperTypesOfParameterizedTypeOrClass |
| 12 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.legacy | 292                 | 187         | 8             | withGapsClean                                      |
| 14 | axon-messaging-4.9.3     | org.axonframework.serialization                   | 285                 | 181         | 7             | equi   |
| 18 | axon-modelling-4.9.3     | org.axonframework.modelling.saga                  | 277                 | 194         | 6             | handle   |
| 11 | axon-disruptor-4.9.3     | org.axonframework.disruptor.commandhandling       | 274                 | 184         | 8             | doDispatch   |
| 13 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.jdbc   | 273                 | 236         | 7             | lambdafetchTrackedEvents                           |
| 19 | axon-messaging-4.9.3     | org.axonframework.commandhandling.gateway         | 249                 | 174         | 12            | createGateway                                      |
| 20 | axon-messaging-4.9.3     | org.axonframework.commandhandling.distributed     | 243                 | 175         | 12            | equi   |
| 17 | axon-test-4.9.3          | org.axonframework.test.saga                       | 235                 | 168         | 9             | assertDispatchedEqual                              |
| 15 | axon-messaging-4.9.3     | org.axonframework.eventhandling.deadletter.jpa    | 212                 | 132         | 15            | equi   |
| 27 | axon-messaging-4.9.3     | org.axonframework.messaging                       | 209                 | 156         | 4             | equi   |
| 25 | axon-messaging-4.9.3     | org.axonframework.messaging.unitofwork            | 206                 | 129         | 11            | executeWithResult                                  |
| 23 | axon-messaging-4.9.3     | org.axonframework.commandhandling                 | 201                 | 169         | 10            | <in  |
| 26 | axon-test-4.9.3          | org.axonframework.test.matchers                   | 191                 | 108         | 8             | matchingField                                      |
| 31 | axon-messaging-4.9.3     | org.axonframework.common.caching                  | 182                 | 110         | 8             | onEvent  |
| 21 | axon-messaging-4.9.3     | org.axonframework.eventhandling.tokenstore.jdbc   | 173                 | 130         | 9             | updateToken  |

|    | artifactName             | fullPackageName                                | complexityInPackage | methodCount | maxComplexity | maxComplexityMeth   |
|----|--------------------------|--|---------------------|-------------|---------------|---------------------|
| 30 | axon-messaging-4.9.3     | org.axonframework.messaging.deadletter         | 169                 | 112         | 10            | equi                |
| 33 | axon-messaging-4.9.3     | org.axonframework.tracing                      | 156                 | 126         | 7             | determineMessageNar |
| 29 | axon-eventsourcing-4.9.3 | org.axonframework.eventsourcing.eventstore.jpa | 155                 | 101         | 8             | withGapsClean       |

## Table 2d - Top 30 methods with highest cyclomatic complexity

The following table shows the top 30 packages containing the methods with the highest cyclomatic complexity. The whole table can be found in the CSV report

Effective\_lines\_of\_method\_code\_per\_package .

| index | artifactName | fullPackageName   | maxComplexityType                                  | maxComple     |
|-------|--------------|---|--|---------------|
| 0     | 51           | axon-messaging-4.9.3<br>org.axonframework.eventhandling.scheduling.job... | JobRunrEventScheduler                              | deserial:     |
| 1     | 2            | axon-messaging-4.9.3<br>org.axonframework.eventhandling.pooled            | Coordinator\$CoordinationTask                      |               |
| 2     | 0            | axon-messaging-4.9.3<br>org.axonframework.eventhandling                   | TrackingEventProcessor                             | pi            |
| 3     | 32           | axon-modelling-4.9.3<br>org.axonframework.modelling.saga.repository       | AssociationValueMap\$AssociationValueComparator    |               |
| 4     | 15           | axon-messaging-4.9.3<br>org.axonframework.eventhandling.deadletter.jp     | DeadLetterEventEntry                               |               |
| 5     | 8            | axon-messaging-4.9.3<br>org.axonframework.messaging.annotation            | AnnotatedMessageHandlingMember                     |               |
| 6     | 7            | axon-eventsourcing-4.9.3<br>org.axonframework.eventsourcing.eventstore    | ConcatenatingDomainEventStream                     |               |
| 7     | 52           | axon-messaging-4.9.3<br>org.axonframework.commandhandling.distributed.... | CommandNameFilter                                  | deserial:     |
| 8     | 47           | axon-messaging-4.9.3<br>org.axonframework.deadline.jobrunr                | JobRunrDeadlineManager                             | deserial:     |
| 9     | 3            | axon-test-4.9.3<br>org.axonframework.test.aggregate                       | AggregateTestFixture                               | ensure'       |
| 10    | 5            | axon-messaging-4.9.3<br>org.axonframework.eventhandling.deadletter.jdbc   | JdbcDeadLetter                                     |               |
| 11    | 37           | axon-messaging-4.9.3<br>org.axonframework.common.jdbc                     | ConnectionWrapperFactory                           | lar           |
| 12    | 39           | axon-test-4.9.3<br>org.axonframework.test.server                          | AxonServerContainer                                |               |
| 13    | 19           | axon-messaging-4.9.3<br>org.axonframework.commandhandling.gateway         | CommandGatewayFactory                              | cre           |
| 14    | 20           | axon-messaging-4.9.3<br>org.axonframework.commandhandling.distributed     | ReplyMessage                                       |               |
| 15    | 22           | axon-messaging-4.9.3<br>org.axonframework.eventhandling.deadletter.leg... | JpaDeadLetter                                      |               |
| 16    | 35           | axon-messaging-4.9.3<br>org.axonframework.deadline.quartz                 | DeadlineJob  |               |
| 17    | 4            | axon-messaging-4.9.3<br>org.axonframework.queryhandling                   | SimpleQueryBus                                     |               |
| 18    | 28           | axon-messaging-4.9.3<br>org.axonframework.deadline.dbscheduler            | DbSchedulerHumanReadableDeadlineDetails            |               |
| 19    | 25           | axon-messaging-4.9.3<br>org.axonframework.messaging.unitofwork            | BatchingUnitOfWork                                 | execut        |
| 20    | 23           | axon-messaging-4.9.3<br>org.axonframework.commandhandling                 | MethodCommandHandlerDefinition\$MethodCommandMe... |               |
| 21    | 40           | axon-messaging-4.9.3<br>org.axonframework.messaging.responsetypes         | MultipleInstancesResponseType                      |               |
| 22    | 49           | axon-messaging-4.9.3<br>org.axonframework.common.lock                     | PessimisticLockFactory\$DisposableLock             |               |
| 23    | 30           | axon-messaging-4.9.3<br>org.axonframework.messaging.deadletter            | GenericDeadLetter                                  |               |
| 24    | 21           | axon-messaging-4.9.3<br>org.axonframework.eventhandling.tokenstore.jdbc   | JdbcTokenStore                                     | l             |
| 25    | 6            | axon-modelling-4.9.3<br>org.axonframework.modelling.command               | AnnotationCommandTargetResolver                    | re            |
| 26    | 17           | axon-test-4.9.3<br>org.axonframework.test.saga                            | CommandValidator                                   | assertDispatc |

| index | artifactName         | fullPackageName                                | maxComplexityType                                  | maxComple                              |
|-------|----------------------|--|--|--|
| 27    | axon-messaging-4.9.3 | org.axonframework.common                       | TypeReflectionUtils                                | getExactDirectSuperTypesOfParameterize |
| 28    | axon-messaging-4.9.3 | org.axonframework.serialization.json           | JacksonSerializer                                  |  |
| 29    | axon-modelling-4.9.3 | org.axonframework.modelling.command.inspection | AnnotatedAggregateMetaModelFactory\$AnnotatedAg... | prep                                   |