

External Dependencies of Java Artifacts with Neo4j

References

- [jqassistant](#)
- [py2neo](#)

External Package Usage

Table 1 - Top 20 most used external packages overall

	externalPackageName	numberOfExternalTypeCaller	numberOfExternalTypeCalls	allTypes	externalTypeNames
0	javax.annotation	320	1406	2498	[Nonnull, Nullable, PreDestroy]
1	org.slf4j	187	527	2498	[Logger, LoggerFactory]
2	javax.persistence	72	324	2498	[Id, IdClass, MappedSuperclass, Index, Entity,...]
3	jakarta.persistence	63	312	2498	[Id, IdClass, MappedSuperclass, Entity, Index,...]
4	org.hamcrest	61	498	2498	[CoreMatchers, Matcher, Description, StringDes...]
5	com.fasterxml.jackson.annotation	54	84	2498	[JsonProperty, JsonGetter, JsonTypeInfo\$Id, Js...
6	org.quartz	37	226	2498	[JobDataMap, Job, JobExecutionException, JobEx...
7	reactor.core.publisher	33	149	2498	[Flux, Mono, FluxSink\$OverflowStrategy, FluxSi...
8	com.fasterxml.jackson.databind	15	73	2498	[DeserializationContext, JsonDeserializer, Jso...
9	org.reactivestreams	13	41	2498	[Publisher]
10	com.thoughtworks.xstream.io	9	46	2498	[HierarchicalStreamWriter, HierarchicalStreamR...
11	com.lmax.disruptor	9	29	2498	[RingBuffer, EventHandler, LifecycleAware, Blo...
12	javax.cache.event	8	34	2498	[CacheEntryEvent, CacheEntryListener, CacheEnt...
13	javax.sql	6	24	2498	[DataSource]
14	com.thoughtworks.xstream.converters	6	12	2498	[MarshallingContext, UnmarshallingContext]
15	nu.xom	5	16	2498	[Document, ParsingException, Builder]
16	net.sf.ehcache	5	63	2498	[Ehcache, CacheException, Element]
17	com.lmax.disruptor.dsl	5	22	2498	[EventHandlerGroup, Disruptor, ProducerType]
18	com.thoughtworks.xstream.mapper	5	10	2498	[Mapper, CannotResolveClassException]
19	javax.validation	5	22	2498	[ValidatorFactory, Validation, ConstraintViola...

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External Package Usage

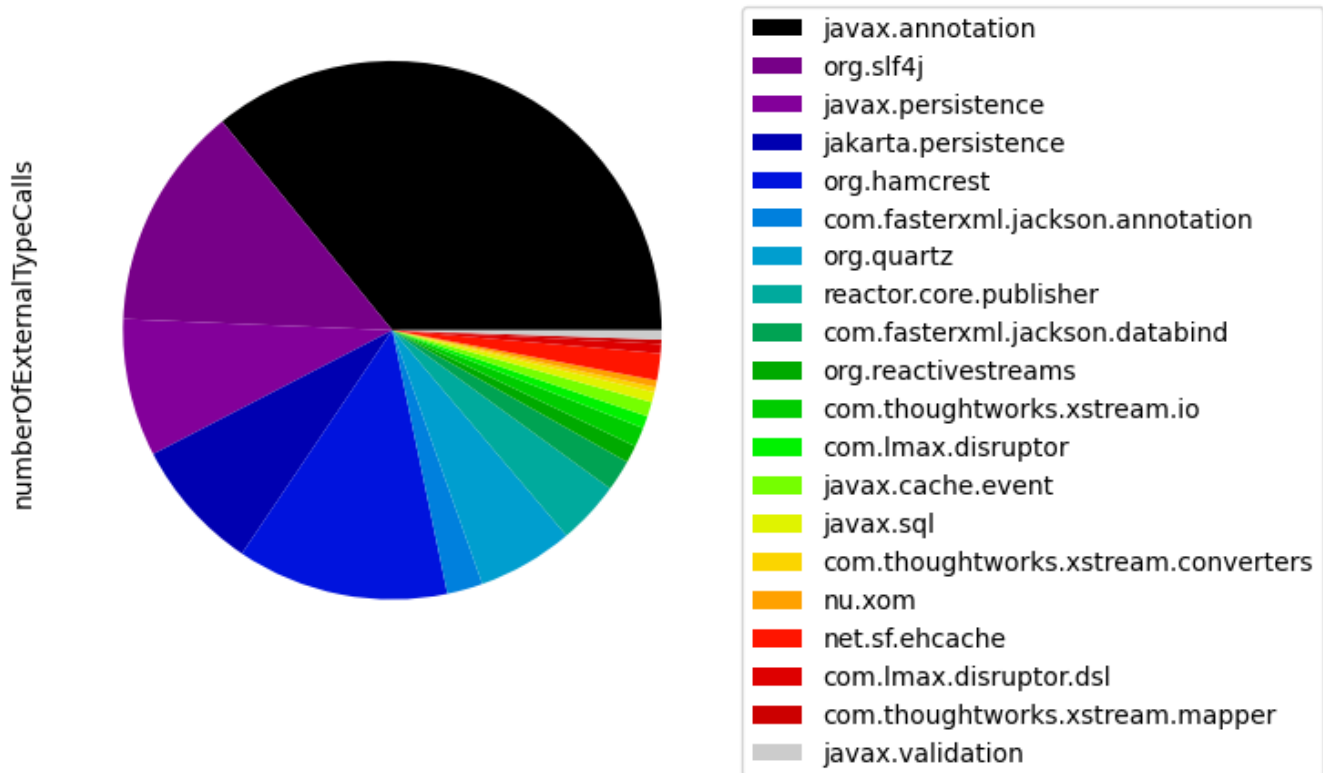


Table 2 - Top 20 least used external packages overall

	externalPackageName	numberOfExternalTypeCalls
0	org.junit.rules	1
1	org.junit.jupiter.api	1
2	javax.xml.stream	2
3	org.junit.runner	2
4	reactor.core	2
5	org.testcontainers.containers.wait.strategy	2
6	com.fasterxml.jackson.datatype.jsr310	2
7	org.quartz.impl.matchers	2
8	org.dom4j.io	3
9	reactor.util.concurrent	3
10	com.fasterxml.jackson.databind.type	3
11	com.fasterxml.jackson.databind.jsontype	3
12	com.fasterxml.jackson.databind.module	3
13	org.junit.jupiter.api.extension	6
14	reactor.util.context	7
15	com.thoughtworks.xstream.converters.collections	7
16	org.testcontainers.containers	8
17	org.junit.runners.model	8
18	net.sf.ehcache.event	9
19	com.thoughtworks.xstream.mapper	10

Table 3 - External usage per artifact

	artifactName	externalPackageName	numberOfExternalTypeCaller	numberOfExternalTypeCalls	numberOfTypesInArtifact	externalTypeNames
0	axon-configuration-4.7.5	javax.annotation	12	104	39	[Nonnull]
1	axon-configuration-4.7.5	org.slf4j	9	28	39	[LoggerFactory, Logger]
2	axon-disruptor-4.7.5	org.slf4j	12	22	22	[Logger, LoggerFactory]
3	axon-disruptor-4.7.5	com.lmax.disruptor	9	29	22	[RingBuffer, BlockingWaitStrategy, WaitStrateg...
4	axon-disruptor-4.7.5	javax.annotation	6	23	22	[Nonnull]
...
61	axon-test-4.7.5	org.testcontainers.containers.wait.strategy	2	2	85	[Wait]
62	axon-test-4.7.5	org.testcontainers.containers	2	8	85	[GenericContainer]
63	axon-test-4.7.5	org.junit.rules	1	1	85	[TestRule]
64	axon-test-4.7.5	org.junit.runner	1	2	85	[Description]
65	axon-test-4.7.5	org.junit.jupiter.api	1	1	85	[Assertions]

66 rows × 6 columns

Table 4 - External usage per artifact and package

	artifactName	fullPackageName	externalPackageName	numberOfExternalTypeCaller	numberOfExternalTypeCalls	numberOfTypesInArtifact
0	axon-test-4.7.5	org.axonframework.test.matchers	org.hamcrest	38	188	38
1	axon-messaging-4.7.5	org.axonframework.queryhandling	reactor.core.publisher	26	115	26
2	axon-messaging-4.7.5	org.axonframework.eventhandling.scheduling.quartz	org.quartz	19	95	19
3	axon-messaging-4.7.5	org.axonframework.deadline.quartz	org.quartz	18	131	18
4	axon-messaging-4.7.5	org.axonframework.serialization.json	com.fasterxml.jackson.databind	15	73	15
...
119	axon-modelling-4.7.5	org.axonframework.modelling.saga.repository.jdbc	javax.sql	1	2	1
120	axon-modelling-4.7.5	org.axonframework.modelling.saga.repository.jpa	javax.persistence	1	2	1
121	axon-test-4.7.5	org.axonframework.test.aggregate	org.junit.rules	1	1	1
122	axon-test-4.7.5	org.axonframework.test.aggregate	org.junit.runner	1	2	1
123	axon-test-4.7.5	org.axonframework.test.saga	org.junit.jupiter.api	1	1	1

124 rows × 8 columns

Table 5 - Top 20 external package usage per type

	artifactName	fullPackageName	typeName	numberOfExternalTypeCaller	numberOfExternalType
0	axon-messaging-4.7.5	org.axonframework.serialization.json	JacksonSerializer	9	
1	axon-messaging-4.7.5	org.axonframework.serialization.xml	XStreamSerializer	7	
2	axon-disruptor-4.7.5	org.axonframework.disruptor.commandhandling	DisruptorCommandBus	6	
3	axon-disruptor-4.7.5	org.axonframework.disruptor.commandhandling	DisruptorCommandBus\$DisruptorRepository	4	
4	axon-messaging-4.7.5	org.axonframework.deadline.quartz	QuartzDeadlineManager	13	
5	axon-messaging-4.7.5	org.axonframework.messaging.responsetypes	MultipleInstancesResponseType	7	
6	axon-messaging-4.7.5	org.axonframework.queryhandling	SimpleQueryUpdateEmitter	13	
7	axon-messaging-4.7.5	org.axonframework.queryhandling	SimpleQueryBus	6	
8	axon-messaging-4.7.5	org.axonframework.serialization	AbstractXStreamSerializer\$MetaDataConverter	6	
9	axon-messaging-4.7.5	org.axonframework.serialization	GapAwareTrackingTokenConverter\$ReflectivelyCon...	6	
10	axon-messaging-4.7.5	org.axonframework.serialization	GapAwareTrackingTokenConverter	6	
11	axon-messaging-4.7.5	org.axonframework.serialization.json	MetaDataDeserializer	6	
12	axon-disruptor-4.7.5	org.axonframework.disruptor.commandhandling	DisruptorCommandBus\$ExceptionHandler	3	
13	axon-disruptor-4.7.5	org.axonframework.disruptor.commandhandling	BlacklistDetectingCallback	4	
14	axon-eventsourcing-4.7.5	org.axonframework.eventsourcing.eventstore.jpa	SQLErrorCodesResolver	4	
15	axon-eventsourcing-4.7.5	org.axonframework.eventsourcing.eventstore.jpa	JpaEventStorageEngine	6	
16	axon-eventsourcing-4.7.5	org.axonframework.eventsourcing.eventstore.leg...	SQLErrorCodesResolver	4	
17	axon-eventsourcing-4.7.5	org.axonframework.eventsourcing.eventstore.leg...	JpaEventStorageEngine	6	
18	axon-messaging-4.7.5	org.axonframework.deadline.jobrunr	JobRunrDeadlineManager	5	
19	axon-messaging-4.7.5	org.axonframework.eventhandling.deadletter.jpa	JpaSequencedDeadLetterQueue	7	

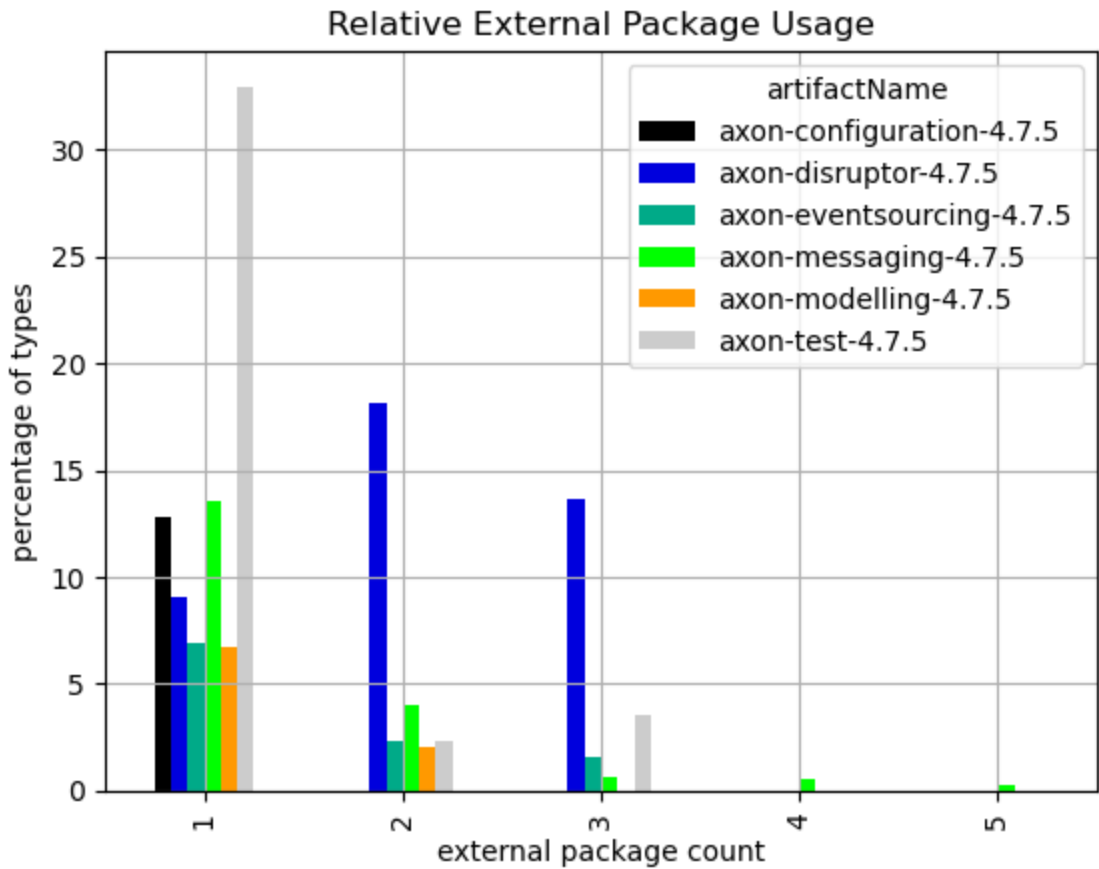
Table 6 - External package usage distribution per type

The table shown here only includes the first 20 rows at most which typically represents the most significant entries. Have a look above to find out which types have the highest external package dependency usage.

	artifactName	artifactTypes	numberOfExternalPackages	numberOfTypes	numberOfTypesPercentage
0	axon-configuration-4.7.5	39	1	5	12.820513
1	axon-disruptor-4.7.5	22	1	2	9.090909
2	axon-disruptor-4.7.5	22	2	4	18.181818
3	axon-disruptor-4.7.5	22	3	3	13.636364
4	axon-eventsourcing-4.7.5	130	1	9	6.923077
5	axon-eventsourcing-4.7.5	130	2	3	2.307692
6	axon-eventsourcing-4.7.5	130	3	2	1.538462
7	axon-messaging-4.7.5	729	1	99	13.580247
8	axon-messaging-4.7.5	729	2	29	3.978052
9	axon-messaging-4.7.5	729	3	5	0.685871
10	axon-messaging-4.7.5	729	4	4	0.548697
11	axon-messaging-4.7.5	729	5	2	0.274348
12	axon-modelling-4.7.5	149	1	10	6.711409
13	axon-modelling-4.7.5	149	2	3	2.013423
14	axon-test-4.7.5	85	1	28	32.941176
15	axon-test-4.7.5	85	2	2	2.352941
16	axon-test-4.7.5	85	3	3	3.529412

artifactName	axon-configuration-4.7.5	axon-disruptor-4.7.5	axon-eventsourcing-4.7.5	axon-messaging-4.7.5	axon-modelling-4.7.5	axon-test-4.7.5
numberOfExternalPackages						
1	12.820513	9.090909	6.923077	13.580247	6.711409	32.941176
2	0.000000	18.181818	2.307692	3.978052	2.013423	2.352941
3	0.000000	13.636364	1.538462	0.685871	0.000000	3.529412
4	0.000000	0.000000	0.000000	0.548697	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.274348	0.000000	0.000000

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Maven POMs

Table 7 - Maven POMs and their declared dependencies

	pom.artifactId	pom.name	scope	dependency.optional	dependentArtifact.group	dependentArtifact.name
0	axon-configuration	Axon Framework - Configuration	test	False	jakarta.persistence	jakarta.persistence-api
1	axon-configuration	Axon Framework - Configuration	default	False	\${project.groupId}	axon-disruptor
2	axon-configuration	Axon Framework - Configuration	default	False	\${project.groupId}	axon-eventsourcing
3	axon-configuration	Axon Framework - Configuration	test	False	org.hibernate	hibernate-core-jakarta
4	axon-configuration	Axon Framework - Configuration	test	True	io.projectreactor	reactor-core
...
104	axon-test	Axon Framework - Test Fixtures	test	False	javax.inject	javax.inject
105	axon-test	Axon Framework - Test Fixtures	default	False	org.junit.jupiter	junit-jupiter
106	axon-test	Axon Framework - Test Fixtures	default	True	org.hamcrest	hamcrest-library
107	axon-test	Axon Framework - Test Fixtures	test	False	jakarta.persistence	jakarta.persistence-api
108	axon-test	Axon Framework - Test Fixtures	default	False	\${project.groupId}	axon-eventsourcing

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