

**git\_comments:**

1. \* \* This class is only public to work with {@link org.apache.flink.api.common.typeutils.ClassRelocator}.
2. \* \* Migration tests for {@link StreamElementSerializer}.
3. ----- Specification for  
"StreamElement-serializer" -----  
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**git\_commits:**

1. **summary:** [FLINK-13632] Port StreamElementSerializer test to TypeSerializerUpgradeTestBase  
**message:** [FLINK-13632] Port StreamElementSerializer test to TypeSerializerUpgradeTestBase

**github\_issues:****github\_issues\_comments:****github\_pulls:****github\_pulls\_comments:****github\_pulls\_reviews:****jira\_issues:**

1. **summary:** Port serializer upgrade tests to TypeSerializerUpgradeTestBase  
**description:** FLINK-11767 introduced a new test base ({@TypeSerializerUpgradeTestBase}) for writing serializer upgrade tests. Now we need to migrate all existing tests from {@TypeSerializerSnapshotMigrationTestBase} to use the new test base and update them to restore from Flink 1.8 onward. It seems these are the subclasses: \* TtlSerializerStateMigrationTest (org.apache.flink.runtime.state.ttl) \* ValueSerializerMigrationTest (org.apache.flink.api.java.typeutils.runtime) \* PrimitiveArraySerializerSnapshotMigrationTest (org.apache.flink.api.common.typeutils.base.array) \* AvroSerializerMigrationTest (org.apache.flink.formats.avro.typeutils) \* TupleSerializerMigrationTest (org.apache.flink.api.java.typeutils.runtime) \* BufferEntrySerializerMigrationTest (org.apache.flink.streaming.api.operators.co) \* TimerSerializerSnapshotMigrationTest (org.apache.flink.streaming.api.operators) \* StreamElementSerializerMigrationTest (org.apache.flink.streaming.runtime.streamrecord) \* KryoSnapshotMigrationTest (org.apache.flink.api.java.typeutils.runtime.kryo) \* BaseTypeSerializerSnapshotMigrationTest (org.apache.flink.api.common.typeutils.base) \* NullableSerializerMigrationTest (org.apache.flink.api.java.typeutils.runtime) \* VoidNamespacieSerializerSnapshotMigrationTest (org.apache.flink.runtime.state) \* ScalaOptionSerializerSnapshotMigrationTest (org.apache.flink.api.scala.typeutils) \* ScalaTrySerializerSnapshotMigrationTest (org.apache.flink.api.scala.typeutils) \* JavaSerializerSnapshotMigrationTest (org.apache.flink.runtime.state) \* LockableTypeSerializerSnapshotMigrationTest (org.apache.flink.cep.nfa.sharedbuffer) \* NFASerializerSnapshotsMigrationTest (org.apache.flink.cep) \* WindowSerializerSnapshotsMigrationTest (org.apache.flink.streaming.runtime.operators.windowing) \* UnionSerializerMigrationTest (org.apache.flink.streaming.api.datastream) \* TwoPhaseCommitSinkStateSerializerMigrationTest (org.apache.flink.streaming.api.functions.sink) \* KafkaSerializerSnapshotsMigrationTest (org.apache.flink.streaming.connectors.kafka) \*

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KafkaSerializerSnapshotsMigrationTest (org.apache.flink.streaming.connectors.kafka) *
RowSerializerMigrationTest (org.apache.flink.api.java.typeutils.runtime) *
ValueArraySerializerSnapshotMigrationTest (org.apache.flink.graph.types.valuearray) *
MapSerializerSnapshotMigrationTest (org.apache.flink.api.common.typeutils.base) *
CompositeTypeSerializerSnapshotMigrationTest (org.apache.flink.api.common.typeutils) *
ListSerializerSnapshotMigrationTest (org.apache.flink.api.common.typeutils.base) *
EnumSerializerSnapshotMigrationTest (org.apache.flink.api.common.typeutils.base) *
PojoSerializerSnapshotMigrationTest (org.apache.flink.api.java.typeutils.runtime) *
ArrayListSerializerMigrationTest (org.apache.flink.runtime.state) * CopyableSerializerMigrationTest
(org.apache.flink.api.java.typeutils.runtime) * WritableSerializerMigrationTest
(org.apache.flink.api.java.typeutils.runtime) * ListViewSerializerSnapshotMigrationTest
(org.apache.flink.table.dataview) * MapViewSerializerSnapshotMigrationTest
(org.apache.flink.table.dataview) * ScalaEitherSerializerSnapshotMigrationTest
(org.apache.flink.api.scala.typeutils) * LongValueWithProperHashCodeSerializerSnapshotMigrationTest
(org.apache.flink.graph.drivers.transform) * ScalaCaseClassSerializerSnapshotMigrationTest
(org.apache.flink.api.scala.typeutils) * TraversableSerializerSnapshotMigrationTest
(org.apache.flink.api.scala.typeutils) * EnumValueSerializerSnapshotMigrationTest
(org.apache.flink.api.scala.typeutils)

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### jira\_issues\_comments:

1. I'd say FLINK-15474 soft blocks this because doing the migration "the old way", by adding binary snapshots, is not quite maintainable, IMO.
2. We can start porting independently of FLINK-15474 because that change is almost transparent to the serializer test implementation, as can be seen in the linked PoC.
3. By the way, I think this is more of a "soft blocker", we didn't have these upgrade tests for a couple releases now and nothing seems to have broken. It would still be good to have them at some point, though.
4. I'm currently porting {{AvroSerializerMigrationTest}}.
5. I'm currently porting {{ValueSerializerMigrationTest}}
6. I'm porting {{TtlSerializerStateMigrationTest}}.
7. I'm porting {{PrimitiveArraySerializerSnapshotMigrationTest}}.
8. I'm on {{TupleSerializerMigrationTest}} now.
9. I'm on {{BufferEntrySerializerMigrationTest}} now.
10. I'm on {{TimerSerializerSnapshotMigrationTest}} now.
11. I'm on {{StreamElementSerializerMigrationTest}} now.
12. **body:** I could go faster but this is so boring that I can only do a few at a time. 🙄  
**label:** code-design
13. I'm on {{KryoSnapshotMigrationTest}}
14. I'm on {{BaseTypeSerializerSnapshotMigrationTest}}.
15. I'm on {{NullableSerializerMigrationTest}}, and {{VoidNamespacieSerializerSnapshotMigrationTest}}.
16. on {{ScalaOptionSerializerSnapshotMigrationTest}}.
17. Implemented on release-1.11 in 4248de26c3500f86596c2d06c91a9c76c576f3cd and previous commits.
18. Implemented on master in aedb4068408cfcad6f258526b00fcbff7f40fb82 and previous commits.
19. For future reference, I think we should not update the snapshots for every release but only update them when we touch the serializers.