

Building and Running Apache Kafka 2.5.0 on Windows

1. Prerequisites

Make sure the following are installed and properly configured in PATH:

- Java 11 (OpenJDK)
- Scala 2.13.11
- Gradle 6.3
- Git for Windows

2. Clone Kafka 2.5.0 Source Code

```
git clone https://github.com/apache/kafka.git
cd kafka
git checkout tags/2.5.0 -b kafka-2.5.0
```

3. Fix build.gradle and settings.gradle

In build.gradle:

- Remove all 'grgit' plugin lines and dependencies
- Remove spotless plugin block and references

In settings.gradle:

Add at the top:

```
pluginManagement {
    repositories {
        gradlePluginPortal()
        mavenCentral()
    }
}
```

4. Generate Gradle Wrapper

```
gradle wrapper --gradle-version 6.3
```

Then run the build:

```
.\gradlew.bat clean releaseTarGz -x test
```

Output: core\build\distributions\kafka_2.13-2.5.0.tgz

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5. Extract and Run Kafka

Extract kafka_2.13-2.5.0.tgz to a folder like C:\kafka_2.13-2.5.0

Start ZooKeeper:

```
. in\windows\zookeeper-server-start.bat .\config\zookeeper.properties
```

Start Kafka:

```
. in\windows\kafka-server-start.bat .\config\server.properties
```

6. Create Topic, Produce & Consume

Create topic:

```
. in\windows\kafka-topics.bat --create --topic my-topic --bootstrap-server localhost:9092 --partitions 1 --replication-factor 1
```

Produce:

```
. in\windows\kafka-console-producer.bat --broker-list localhost:9092 --topic my-topic
```

Consume:

```
. in\windows\kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic my-topic --from-beginning
```