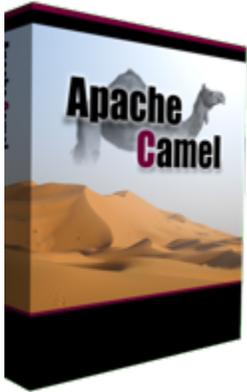


# Camel 2.21.0 Release

## Camel 2.21.0 Release



### New and Noteworthy

Welcome to the 2.21.0 release which resolved 400 issues including new features, improvements and bug fixes.

This release supports only Spring Boot 1.5.x. Support for Spring Boot 2.0.x is coming in Camel version 2.22 which is planned for early summer 2018.

- Upgraded to JAXB 2.3.0 which is more JDK9 compliant.
- Added better support for `javax.jms.StreamMessage` types in **JMS** component.
- Optimised **JMS** to support ActiveMQ Artemis **large messages** so you can send and receive big messages such as GB's in size. There is an example demonstrating this in `camel-example-artemis-large-messages`.
- Added support for route coverage reports which allows 3rd party tooling via SPI to visualise route coverage to Camel developers.
- Added route-coverage goal to the **Camel Maven Plugin** so you can report route coverage from Maven command line.
- Added support for doing manual commits via Java code when using **Kafka** consumer.
- Vendor extensions in the swagger generated API docs is now disabled turned off, when using **Rest DSL** (not all 3rd party API gateways/tooling support vendor extensions). You can turn this back-on via the `apiVendorExtension` option.
- The SFTP consumer now also supports the `useList` option which can be used to download a single known file without use LIST operation on the FTP server (which can be slow if the FTP server has many files in the LIST results)
- Camel **JSON** with camel-jackson will now automatic use shared ObjectMapper instance if there is only one instance in the **Registry**. For example users with Spring Boot then allows Camel to easily use the default mapper from Spring Boot.
- Added `ExtendedStartupListener` that allows a callback just after the CamelContext has been fully started.
- You can now specify examples in the **Rest DSL** that are included in the generated Swagger api-doc via `camel-swagger-java`.
- Improved file/ftp consumer to use current thread to poll, instead of a scheduled background task, when using `pollEnrich` (**Content Enricher**).
- **Direct** component now blocks by default if sending to a consumer which is not yet ready, which may happen during startup (little window of opportunity). This avoids `DirectConsumerNotAvailableException` being thrown during startup etc.
- The **FTP** component can now log progress (turn on `transferLoggingLevel`) when performing download/upload and other operations. You can also find this information for the consumer in JMX.
- Added support for resuming downloads to **FTP** component. For example if you download big files and has connection problems with the FTP server. Then later when the connectivity works again, Camel can resume download the in-progress file.
- The **Jetty** and **SERVLET** consumers will now return HTTP Status 405 (method not allowed) for requests that would have been processed by another HTTP request method, for example calling REST services with the wrong method. Beforehand a 404 error code was always regardless.
- Reworked the `FileIdempotentRepository` so the internal in-memory cache is only used for quick lookup of the most frequent file names, and lookup from disk as well. See more details in the class javadoc of the file.
- The **SQL Stored Procedure** component now supports INOUT parameters.
- Added restart action to **ControlBus Component** so you can easier restart a route.
- camel-spring-boot actuator endpoints for routes is now in read-only mode by default.
- Added option to **Aggregate EIP** so make it easier to complete all previous groups on new incoming correlation key, and as well to force completion from Java code logic in the `AggregationStrategy` implementation.
- Using `AdviceWith` for unit testing now logs the routes before vs after in XML format so its easier to spot the change route models.
- Added support for using **SpEL** in non-spring runtimes (however there may be functionality that SpEL may only be able to perform if using a Spring runtime).
- Made it easier to configure timeout options on **HTTP4** component.
- Improvements to **RabbitMQ** component so for example its easier to route between RabbitMQ exchanges without having to remove headers or turn on `bridgeEndpoint` option. Also reduced the logging noise that occurred at INFO level.
- You can now configure many of the **RabbitMQ** options on the component level instead of having to repeat them on each endpoint.
- The **Bean** language can now refer to method name via the double colon syntax, eg `.to("bean:myBean::myMethod")`

The following issues has been fixed

- Fixed `afterApplicationStart` callback on camel-spring-boot to be called later and after CamelContext has been fully started.
- Fixed an issue testing with `@UseAdviceWith` and Camel on Spring Boot.
- Fixed **OnCompletion** would not be triggered from a route using **Splitter** and an exception was thrown during splitting.
- Fixed **Kafka** consumer stops consuming messages when exception occurs during offset commit.
- Fixed **Netty4** consumer to stop taking in new requests while being shutdown, as otherwise it cannot graceful shutdown if new requests come in faster than it can process existing in-flight messages.
- Fixed an issue with **Routing Slip** and **Dynamic Router** when using context scoped error handler, could cause the error handler to become stopped.

- Fixed [Rest DSL](#) with [Jetty](#) security via custom define security handler and turned on api-doc as well would not startup Jetty server due missing NoLoginService error.
- Fixed Blueprint error: "name is already instanciated as null and cannot be removed"

## New Enterprise Integration Patterns

- [Claim Check EIP](#) with push/pop functionality.
- [Saga EIP](#) for simulation transactionals in distributed systems

## New Components

- camel-aws - KMS component for managing Amazon KMS
- camel-aws - MQ component for working with Amazon MQ
- camel-elasticsearch-rest - The elasticsearch component is used for interfacing with Elasticsearch server using 5.x REST API.
- camel-yql - The YQL (Yahoo! Query Language) platform enables you to query, filter, and combine data across the web.
- camel-xhchange - The camel-xchange component provide access to many bitcoin and altcoin exchanges for trading and accessing market data.
- camel-wordpres - To integrate Camel with Wordpress

## New Data Formats

## New Languages

## API breaking

- All the AwsEndpoint uri options have been removed: since we are now using AWS client builders, the way we were using the endpoint cannot be used anymore, since clients are immutable now. If you still need to set an AWS endpoint on your client, you can create your client instance and put it in the Camel registry.
- Minor API changes to `org.apache.camel.component.file.GenericFileOperations`
- Minor API changes to `org.apache.camel.http.common.ServletResolveConsumerStrategy`

## Known Issues

### Important changes to consider when upgrading

- Jetty has been upgraded to 9.4 by default, and camel-jetty is requiring version 9.3 or 9.4 to run in OSGi.
- [Direct](#) component now blocks by default if sending to a consumer which is not yet ready, which may happen during startup (little window of opportunity). This avoids `DirectConsumerNotAvailableException` being thrown during startup etc. The old beavhaior can be turned on by setting `block=false` on the direct component level, or on endpoints where needed.
- When using `camel-saxon` then the `SaxonXPathFactory` class is created in the [recommended way](#) from Saxon. It will fallback and create the factory the old way if not possible.
- The `camel-json-validator` component has switched from using Everit to NetworkNT JSon Schema validator library, as the former had ASF license implications and would not be allowed in future Camel releases. The NetworkNT supports v4 draft of JSon Schema as validation so make sure to use that draft version in your schemas.
- Reworked the `FileIdempotentRepository` so the internal in-memory cache is only used for quick lookup of the most frequent file names, and lookup from disk as well. See more details in the class javadoc of the file.
- The [Karaf](#) commands for routes is changed so the arguments for the camel context is first, and the route id is the 2nd argument. This allows the route completer to use the selected camel context name to only show route ids from that camel context, as otherwise it shows all the routes for every Camel application running in Karaf.
- camel-spring-boot actuator endpoints for routes is now in read-only mode by default. This means operations to start,stop,suspend,resume routes is forbidden. You can turn off read-only mode by setting the spring boot configuration `endpoints.camelroutes.read-only = false`

## Getting the Distributions

### Binary Distributions

| Description                    | Download Link                              | PGP Signature file of download                 |
|--------------------------------|--|--|
| Windows Distribution           | <a href="#">apache-camel-2.21.0.zip</a>    | <a href="#">apache-camel-2.21.0.zip.asc</a>    |
| Unix/Linux/Cygwin Distribution | <a href="#">apache-camel-2.21.0.tar.gz</a> | <a href="#">apache-camel-2.21.0.tar.gz.asc</a> |

The above URLs use redirection



The above URLs use the Apache Mirror system to redirect you to a suitable mirror for your download. Some users have experienced issues with some versions of browsers (e.g. some Safari browsers). If the download doesn't seem to work for you from the above URL then try using [Firefox](#)

### Source Distributions

| Description | Download Link | PGP Signature file of download |
|-------------|---------------|--------------------------------|
|-------------|---------------|--------------------------------|

|              |   |   |
|--------------|---|---|
| Source (zip) | <a href="#">apache-camel-2.21.0-src.zip</a> | <a href="#">apache-camel-2.21.0-src.zip.asc</a> |
|--------------|---|---|

## Getting the Binaries using Maven 2

To use this release in your maven project, the proper dependency configuration that you should use in your [Maven POM](#) is:

```
<dependency>
  <groupId>org.apache.camel</groupId>
  <artifactId>camel-core</artifactId>
  <version>2.21.0</version>
</dependency>
```

## Git Tag Checkout

```
git clone https://git-wip-us.apache.org/repos/asf/camel.git
cd camel
git checkout camel-2.21.0
```

## Changelog

For a more detailed view of new features and bug fixes, see the:

- [Release notes for 2.21.0](#)