

TECHNOLOGY STACK INFORMATION

Platform: front-end

- ES6
- React (for the component structure)
- Promises (with bluebird)
- RxJS (to manage state changes)
- StompJS (on top of the websockets protocol)
- ImmutableJS (for the data structures)
- Karma (for testing)

Platform: back-end

Summary

Technology group #1

- Groovy
- Spring (grails, SpringBoot)
- Spring-integration
- Gradle
- RabbitMQ
- Protobuffer
- Tomcat
- PostgreSQL
- JooQ
- Stomp
- ffmpeg

Technology group #2

- C++ 14
- RabbitMQ
- Protobuffer
- PostgreSQL
- cmake

In detail

Core (REST API, centralize all traffic and interact with the integrations)

- Grails (spring)
- Spring-integration
- RabbitMQ (protobuf)
- Tomcat
- PostgreSQL

Blackbox (Low level audit log)

- SpringBoot
- RabbitMQ (protobuf)
- PostgreSQL (JooQ)

Barrel (blackbox querying tool)

- SpringBoot
- RabbitMQ (protobuf)
- PostgreSQL (JooQ)

Websockets (sends updates in real time to the front-end client)

- SpringBoot
- RabbitMQ (protobuf)
- Stomp

Aura (Still generation, Clip generation)

- SpringBoot
- RabbitMQ (protobuf)
- ffmpeg

Ingestion (feeds the converted videos into the platform)

- SpringBoot
- RabbitMQ (protobuf)

Motion detection

- C++ 14
- RabbitMQ (protobuf)
- PostgreSQL
- cmake

Face Detection

- C++ 14
- RabbitMQ (protobuf)
- PostgreSQL
- cmake

INFRASTRUCTURE

- GNU/Linux (Ubuntu, Debian)
- GitLab (git)
- Jenkins (CI) to be deprecated in favour of GitLab CI
- Static code analysis (codenarc)
- Unit Tests (spock, karma...)
- Ansible
- Taiga (project management)