

Mobile application for 3D real-time visualization for outdoor sport competitions

LiveInSport SAS – [CHU Lille & Univ.Lille,
EA 2694]

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LiveInSport, a company dedicated to outdoor sport events follow-up

Prenez le virage du numérique sur tous vos événements sportifs !

Pour l'organisateur



Positions géographiques des sportifs en temps réel pour assurer leur sécurité.

Pour l'animateur



Situation de la course en direct, positions, écarts et commentaires simplifiés



Pour les internautes

Suivi de l'épreuve accessible à tous les internautes via un listing et une carte interactive



Pour les proches

Possibilité de se rassurer, anticiper facilement les lieux et les horaires de passage.



The Marathon of « Cognac », 44km (Charente department, November 2016)



The Trail « La Pastourelle », 53km (Cantal department, May 2017)



Cycling « La Corima » 74km, 110km, 167km (Drôme department, March 2017)



The Swim&Run « Côte de Vermeille » 60km / 44km / 25km / 12km (Eastern Pyrenees department, June 2017)



2D modelization – Google Maps

00:00:00

⊖ x32 ⊕



SwimAndRun 12.7km ▾



Swim&Run of « Côte de Vermeille », June 2017

2D Modelization

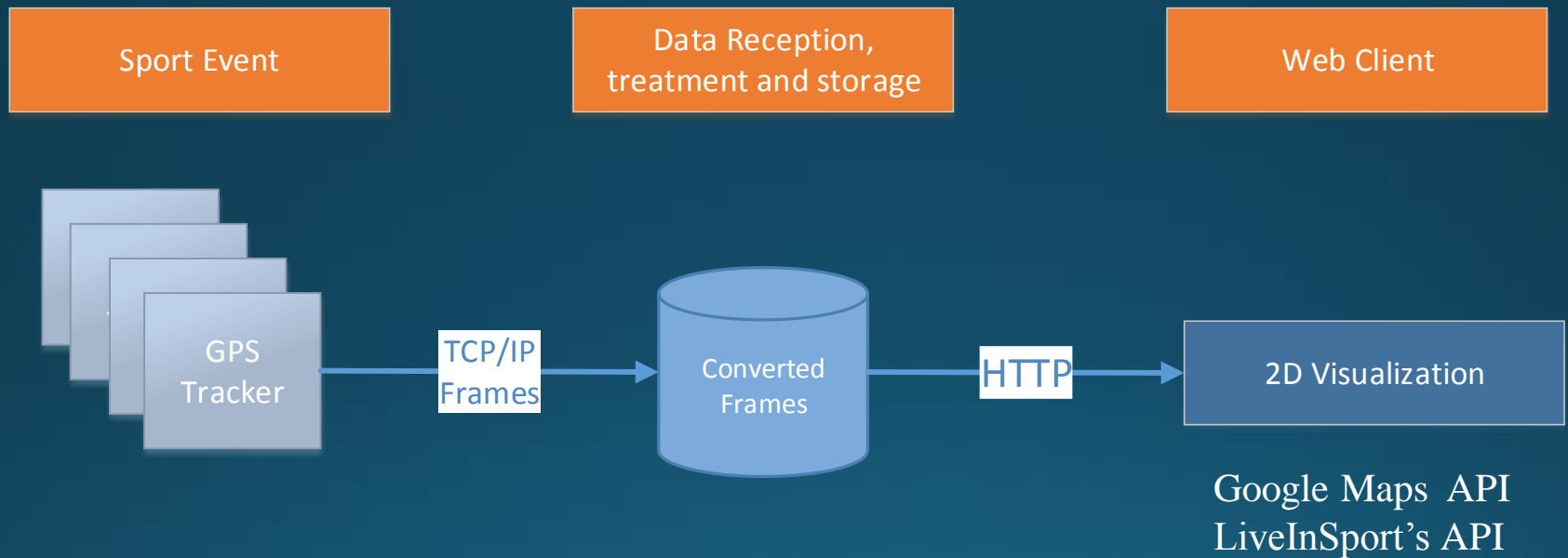
GPS Coordinates vs GPX Track matches



Calculation of traveled distance
by segmentation of the track

Transit time calculations
from discrete temporal data

2D modelization Real-time process



3D Modelization

Goal

Immerse the audience in the sporting event.

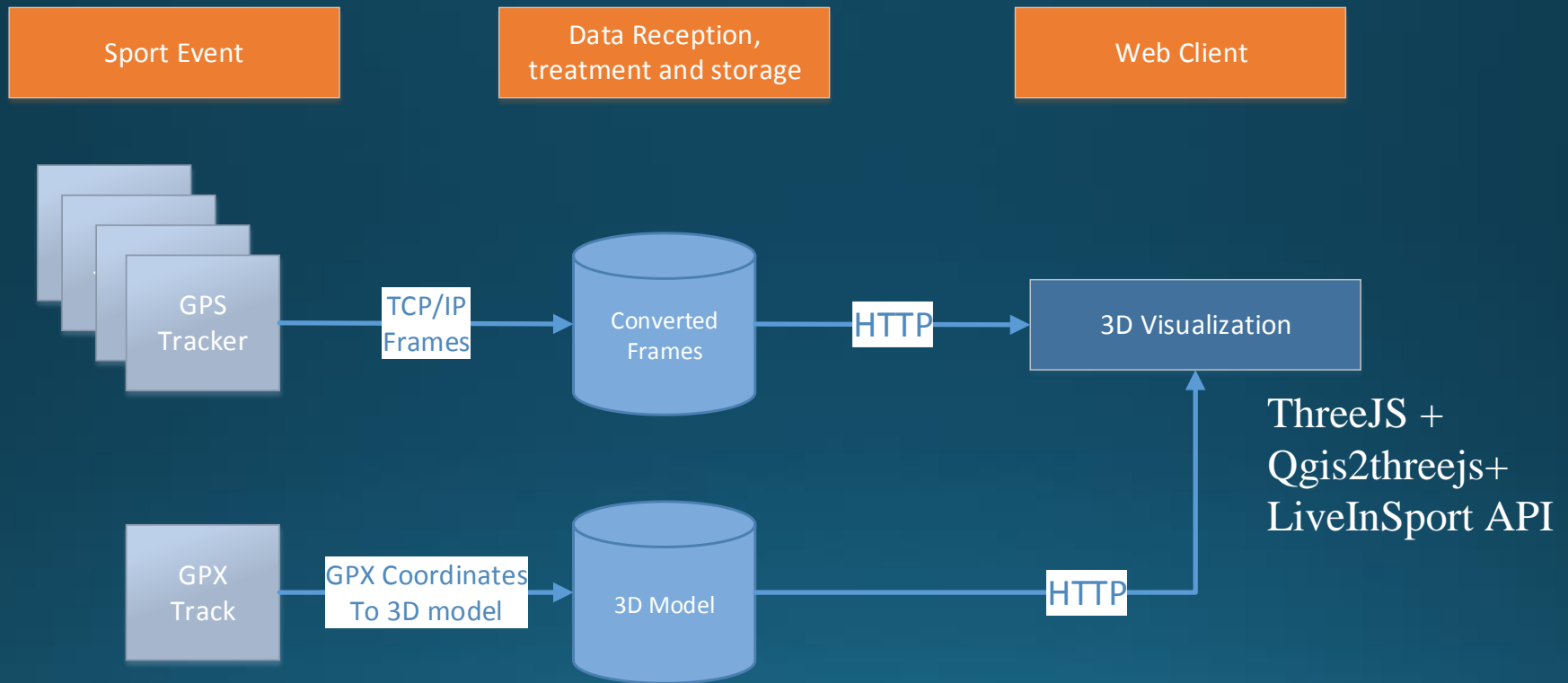
Step 1 : Proof of concept (Oct 2016- Sept 2017)

3D Dynamic visualization of existing sport events

Collaborative research activity

CHU of Lille - University of Lille / LiveInSport

3D Modelization Real-time process



Digital Elevation Model (DEM) + Orthophotography, Web Map Services (WMS)

Sources: CRAIG, IGN

QGIS software /ThreeJS Library /Qgis2threejs plugin

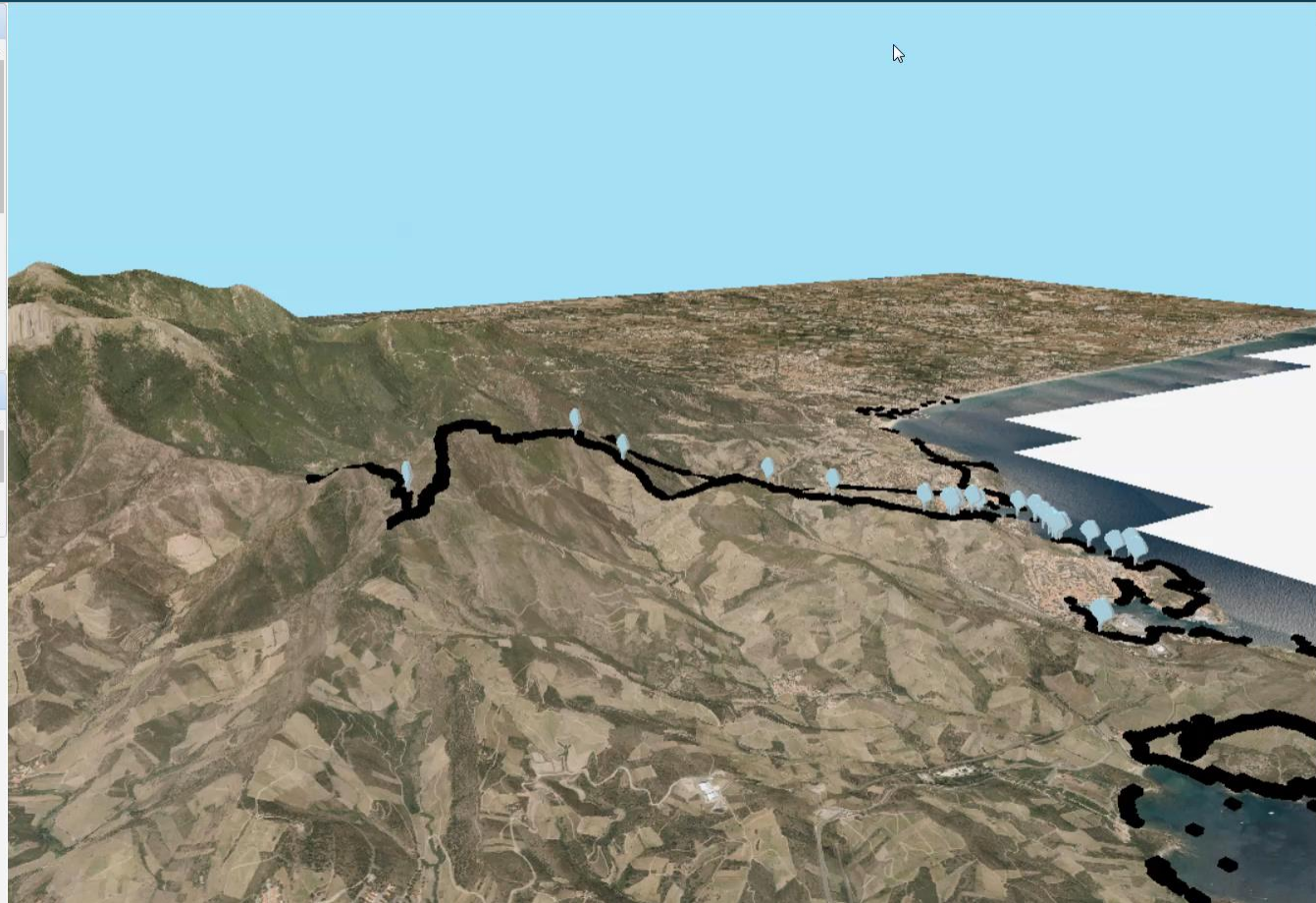
3D Modelization – ThreeJS

Static parameters

ts_crs	EPSG:2154
ts_Xmin	692727.045061
ts_Ymin	6148235.17251
ts_Xmax	714817.204421
ts_Ymax	6173038.82896
ts_W	22090.159359999932
ts_H	24803.65644999966

Camera Parameters

x	36.1421834617403
y	-34.6533477634193
z	9.44047735263586



Next Steps

WHAT WE DID

- **Step 1 : 3D Proof of concept (Oct 2016- Sept 2017)**
 - 3D Dynamic visualization of existing sport events

NEXT STEPS

- **Step 2 : Development (Sept 2017-March 2018)**
 - Add realism (participants and track « dressing »)
 - Dynamic visualization of live sport events
- **Step 3 : Commercialization (2018)**

Aknowledgments

This project has been realized thanks to :

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CHU of Lille

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Minoru Akagi

mrDoob

Many thanks to the Academic Network

OSGeo

Thank you for your attention