

LibLRS

Library for Linear
Reference Systems

Open source library for linear
referencing systems (LRS)

France



What is a Linear Referencing system?

The Anchor

Or milestone.

Any reference point or landmark.

⚠ Very often at the line (not track)

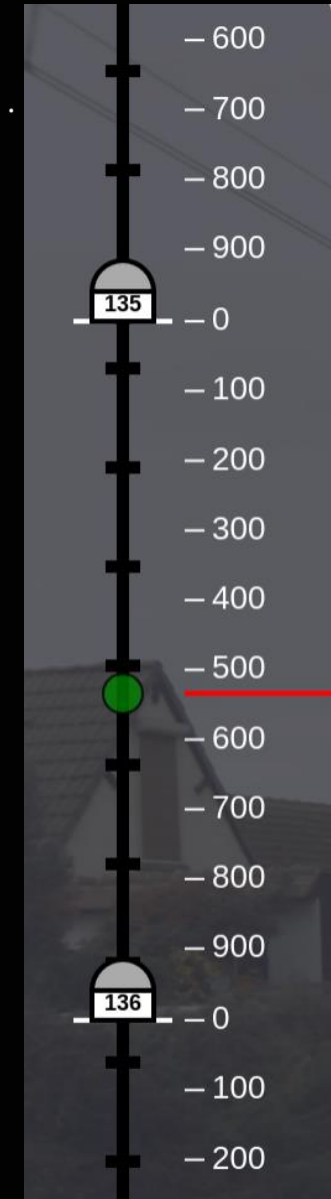


The Scale

How to subdivide
between two anchors

1000 *passus* (2000 steps,
5000 *pedes*)

Railway: “meters”



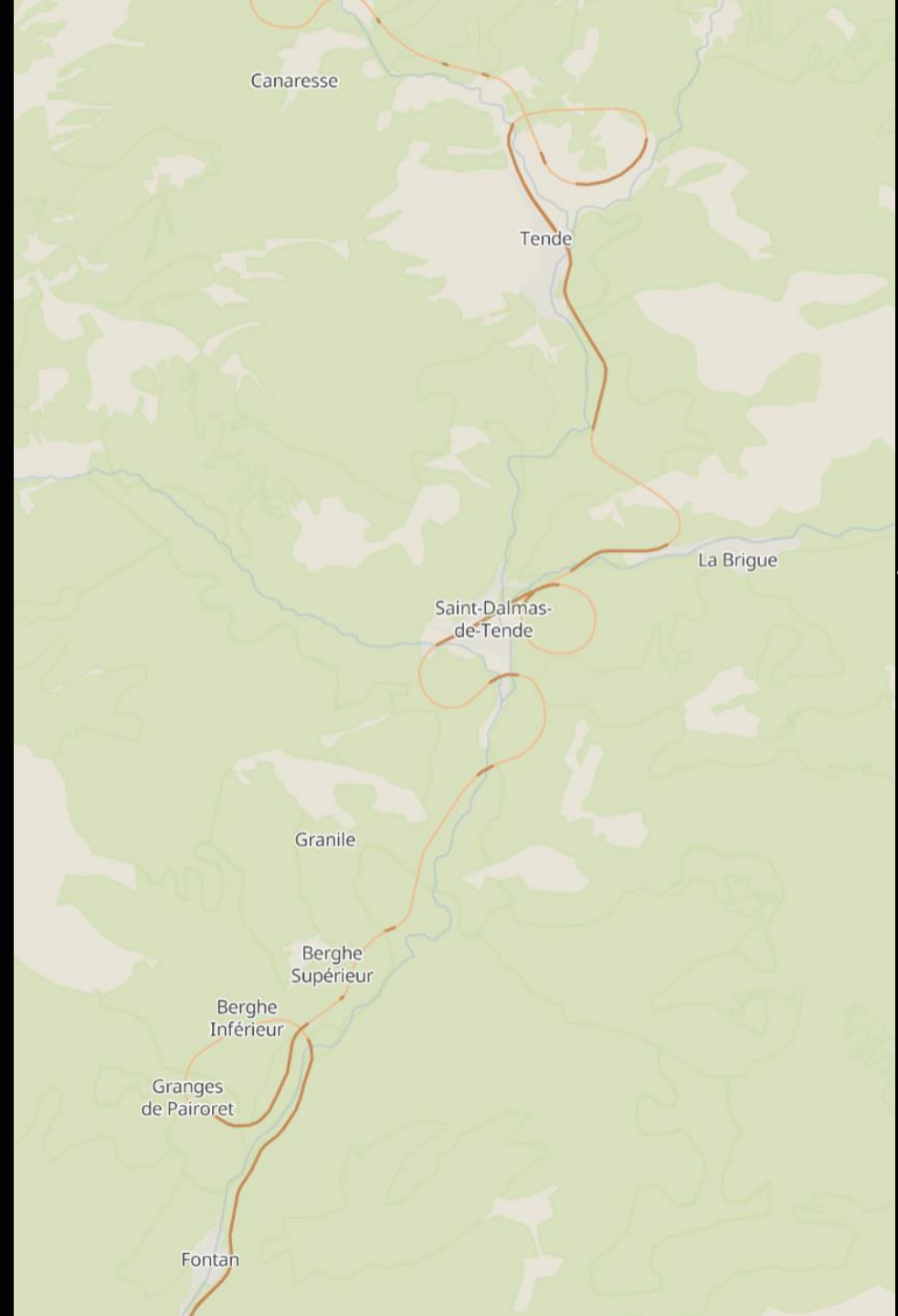
Linear localisation

Anchor and offset

12+232

What can go wrong?

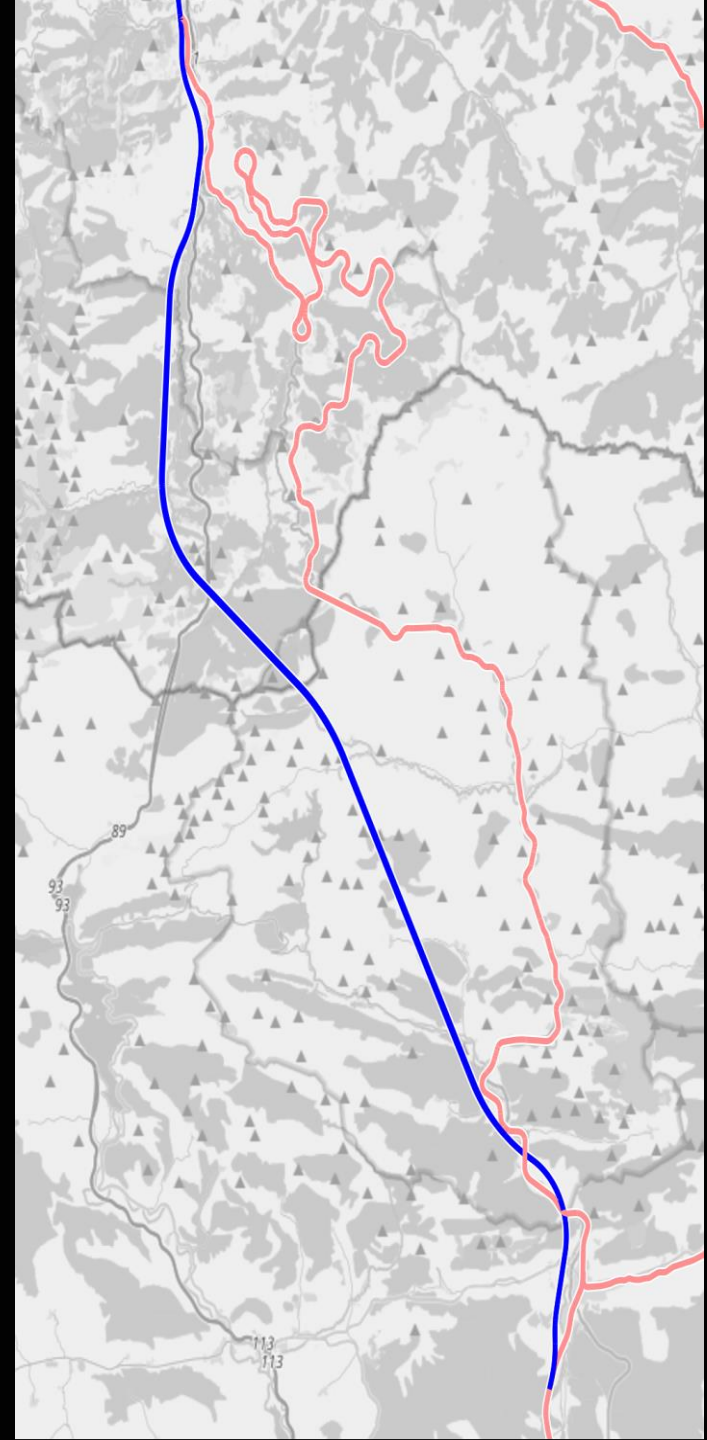
Curves



Track work

Keep the same numbering

Changing the distances



History

Measurement errors

Relative measures

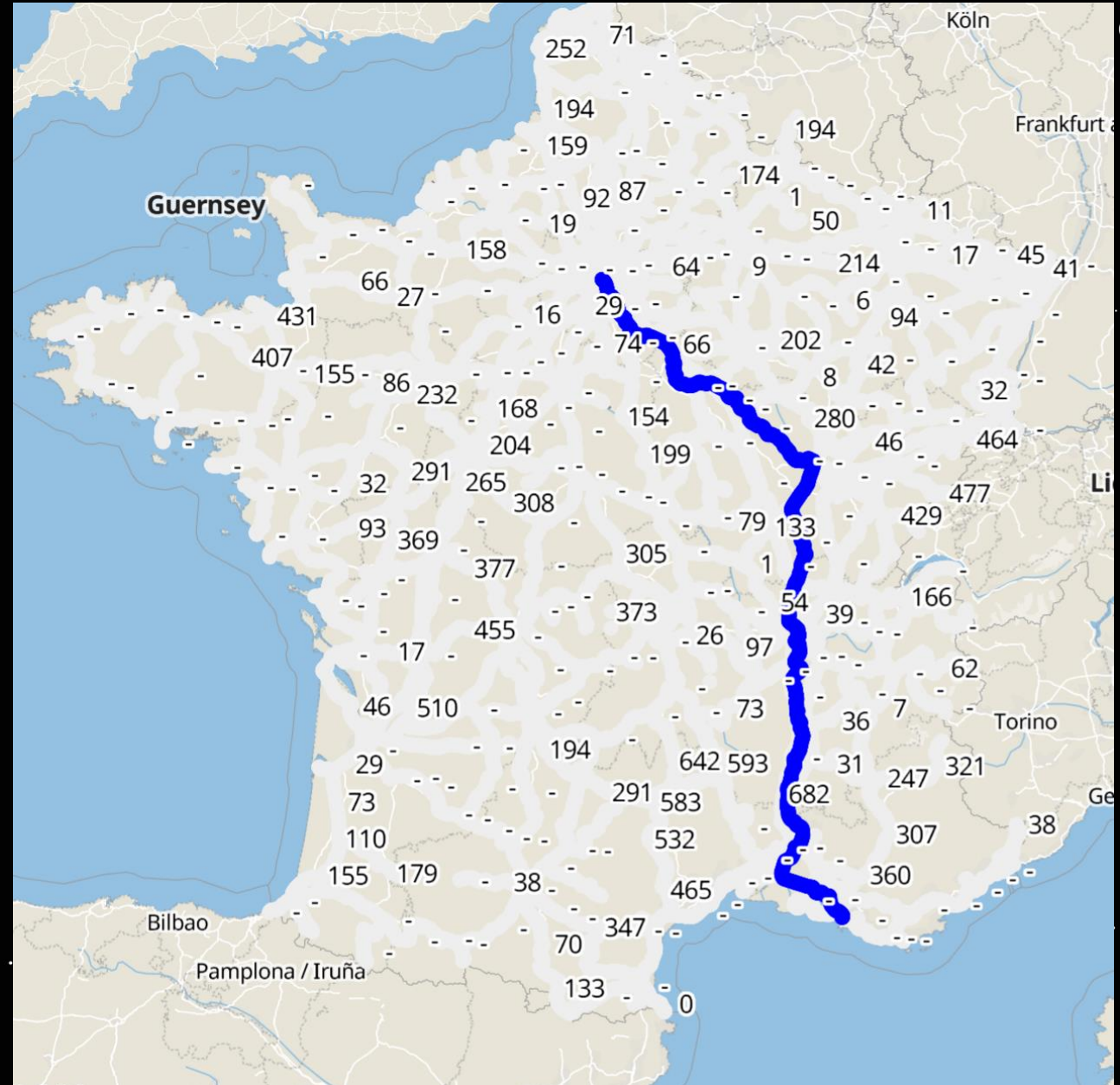
⚠ The order is critical





The earth is not flat

Line 83000 is 862 km long



LibLRS

- Handles all that
- Written in rust with bindings
 - Python and JavaScript
- Exchange file format

<https://github.com/OpenRailAssociation/liblrs>

Merci.