Koordinates

A geospatial data management platform inspired by cracking GIS data out of vendor silos. You can host, manage, share, publish, access, and build, alongside thousands of others worldwide.

koordinates.com

@koordinates
What can you do with versioning?

Work smoothly across multiple tasks and projects

Publish data regularly & reliably; with full history

Accept contributions

Peer review changes

Automate workflows & testing
Opportunities

Data integrity & verifiability

Bi-directional data supply chains

Cross eco-system data handling

Reliably use the latest data
All data is versioned

what changed?
who changed it?
when did it change?
why did it change?

May  Jun  Jul 2  Aug
What does real versioning look like?

- **main**
- **merge**
- **tag v202309**
- **changes in a branch**
Kart Principles

Open & free; ecosystem agnostic

Easy to install and **batteries included** 🍍💻🐧

For practical day to day use

Built on Git

Photo by James Sullivan on Unsplash
Working Copies

Where you work with and edit your data

Different repository users can use different working copies

- Vector & Tables: GeoPackage, PostGIS, MSSQL & MySQL
- Roadmap: ESRI File GeoDatabases
- Point Clouds: LAZ & LAS
- Rasters & Grids: native & GeoTIFFs
- Cloud Optimised
Spatially Filtered Clones

Work with only your area of interest
Smaller working copies for better performance in your tools
Reduces the network transfer for clones & fetches
💡 Fetch from & push relevant updates to the full dataset
Spatial Filtering

$ kart clone example.org:mydata
   --spatial-filter="EPSG:4326;POLYGON((-4 55.7, -4 56, -4.5 56, -4.5 55.7, -4 55.7))"

$ kart clone example.org:mydata
   --spatial-filter=@myextent.txt

$ kart fetch
Vector & Table Datasets

0-100GB sized datasets

Data types follow a SQL model

✓ CRS support  ✓ Schema changes  ✓ Conflict resolution

Import from many OGR formats

💡 Can "re-import" from a snapshot dataset into a new commit, and Kart will figure out the change.
Point Cloud Datasets

Built on Cloud Optimised Point Clouds (COPC) — see copc.io

Supports LAS/LAZ

0→TB sized datasets

S3/object storage support

Automatic Virtual Point Cloud (VPC) creation for QGIS
Raster Datasets

Built on Cloud Optimised GeoTIFFs

0→TB sized datasets

S3/object storage support

Automatic Virtual Raster (VRT) creation
QGIS Plugin

Install via the QGIS plugin manager
Roadmap

💡 Referencing data from existing S3 buckets without copying
💡 File GeoDatabase working copy
💡 Blend local & remote Raster & Point Cloud datasets
💡 Inter-linking datasets for projects
💡 Serving tiles & APIs (like STAC) directly from repos
💡 Extended CRS support