How does Allmaps work?

IIIF map collections

Hundreds of thousands of digitized maps are already accessible through IIIF across institutions worldwide. Allmaps makes it possible to enrich these maps with geospatial data, and view them on top of other map layers.
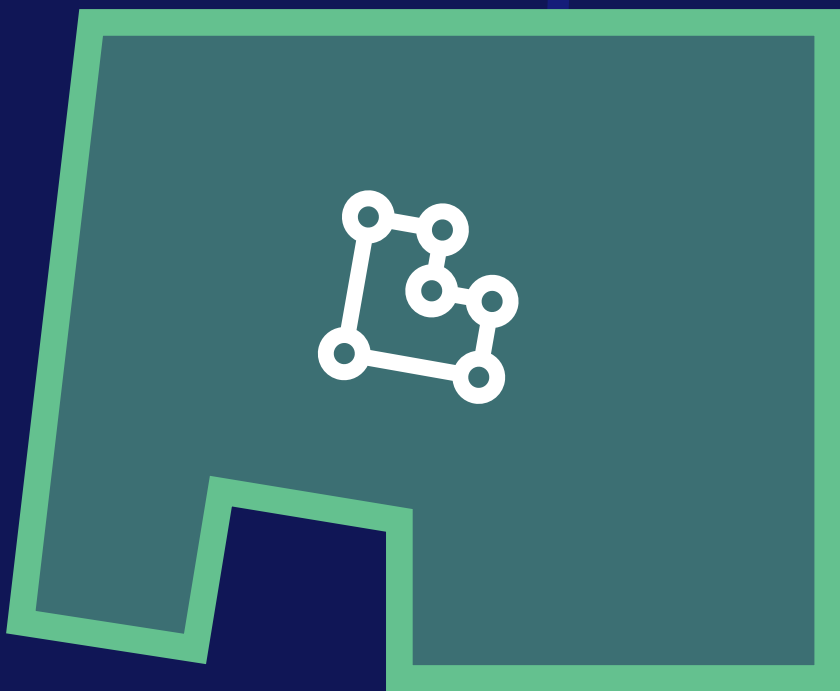
Open-source components

The core components of Allmaps are open source and available on GitHub. For example, modules to read and write Web Annotations, parse IIIF resources, transform pixel coordinates to geospatial coordinates, and layers for OpenLayers.

Web-based georeferencing

Allmaps can georeference and warp any map that is available with IIIF, directly in the browser. If somebody else already started georeferencing a map, you can continue editing and improve their work.

Import tools

Allmaps provides ways to import and use the metadata of map collections that are already georeferenced with other georeferencing tools.

IIIF extension for geospatial data

The IIIF community is working on an official IIIF extension for georeferencing and geotaging IIIF images. This extension will be published as an open standard and is used by Allmaps for communication between all its components.

{52.43, 6.88}

Based on open standards

Allmaps uses the IIIF API and the upcoming IIIF extension for geospatial data throughout its components. Maps can be exported to file formats such as GeoJSON, GeoTIFF, Shapefiles and CSV.

Allmaps API

Metadata of maps that are georeferenced with Allmaps can be stored in the cloud with the Allmaps API. In the future, this API will support version control and authentication for more complex crowdsourcing projects.

Static websites

The Allmaps editing and viewing tools are simple static web sites. Similar to Mirador and Universal Viewer, they function by referencing a IIIF resource or Web Annotation in the URL.

In-browser map warping

With JavaScript and WebGL, Allmaps can transform georeferenced maps in the browser and display on other map layers using libraries like OpenLayers and Leaflet. Allmaps uses the IIIF Image API to download only the relevant parts of the image, in the right resolution.

Explore maps across institutions

Allmaps makes it easy to find relevant maps from institutions around the world. Using IIIF manifests and collections, Allmaps can be used to explore curated collections of maps, from multiple institutions.

Export tools

You can keep using your favorite GIS, database and scripting language. Allmaps allows you to download map collections as CSV or GeoJSON, or generate GDAL scripts to create GeoTIFFs and map tiles.

No GIS infrastructure, just static JSON, HTML and JavaScript

Allmaps does not require complicated and expensive GIS infrastructure to georeference, warp and explore map collections.