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OLD MAPS ONLINE



DISCOVERING THE CARTOGRAPHY OF THE PAST

JISC

 University of
Portsmouth

 KLOKAN
TECHNOLOGIES

The background

- ~ **Computer Science**, developer of open-source software for map publishing: **MapTiler** / GDAL2Tiles, OpenLayers, IIPImage JPEG2000, WebGL Earth, ...
- ~ **The federated map search portal since 2007**
- ~ CEO of a small Swiss company: innovative mapping applications for culture heritage.
- ~ Contracted development, grants.
- ~ Clients: British Library, David Rumsey, NLS, ...

Project targets

- ~ **The gateway to scanned maps in libraries around the world**
- ~ Intuitive search by location
- ~ Indexing maps from several institutions
- ~ One click to view the map in high resolution
- ~ Free to access and open for contributions
- ~ Audience: general public, genealogists, historians, researchers



LIVE DEMO

www.oldmapsonline.org

We want to...

- ~ **Bring online visitors to the websites of participating institutions to view the maps**
- ~ Promote the map libraries and their content
- ~ Do proper crediting: logo and links back
- ~ Store only minimal metadata & thumbnails
- ~ Make it easier to discover the scanned maps
- ~ Boost the number of online visits of maps
- ~ Allow users to find maps from “deep web”



Technology

- ~ Based on the MapRank Search technology
<http://www.mapranksearch.com/>
- ~ Released in 2010 by Klokan Technologies for Swiss project Kartenportal.ch, improved for Czech libraries and for David Rumsey
- ~ Useful for large metadata catalogs + geospatial repositories.
- ~ Details in the article published in D-Lib:
[doi:10.1045/september2011-oehrli](https://doi.org/10.1045/september2011-oehrli)

OMO sustainability

- ~ Project actively developed now - until January 2013. Basic maintenance covered by JISC until 2018.
- ~ Google Ads to help cover the hosting costs.
- ~ Participation on a future research projects for improvements of the technology and optimizations of the tool. Ideas?

How can you help?

- ~ Use the system & send us ideas for improvement and report bugs
- ~ Share: blog, twitter, facebook, google+
- ~ We are calling for institutions who would like to include their maps. It is for free. Institutions retain all the rights.
- ~ Submission of maps from individuals at later point (technically more problematic)

Requirements for inclusion

- ~ **High resolution (300dpi+ or 2 Megapixel+) maps with a zoomable viewer online**
- ~ Permanent URL with direct access - no password or payment required
- ~ Metadata with DublinCore elements supplied in a spreadsheet (XLS). Later OAI-PMH harvesting.
- ~ Bounding box (MARC 034, DCMI BOX, ...)
- ~ <http://project.oldmapsonline.org/contribute>



Bounding box



Bounding box encoding

MARC: field 034

```
034: $$dE0055700$$eE0102900$$fN0474800$$gN0454900  
255: $$cE 5°57'00"-E 10°29'00"/N 47°48'00"-N 45°49'00"
```

DublinCore: DCMI Box

```
DCMI BOX: westlimit=5.9559; southlimit=45.818;  
eastlimit=10.4921; northlimit=47.8084
```

ISO 19115 / FGDC

Bounding Box / Geoparser

- ~ **BoundingBox Tool:** Cataloguing of physical maps - manual selection of area on top of an online base map (used by MZK.cz, Swiss libraries, David Rumsey, ...)
- ~ **Geoparser:** Semi-automatic process - with suggestion of the area by analyzing existing textual metadata. Contact us.
- ~ <http://boundingbox.klokantech.com/>



LIVE DEMO

boundingbox.klokantech.com



Georeferencer

- ~ It allows to **turn the existing online scans into geodata** in a web browser
- ~ Support true collaborative editing
- ~ It retains **log of all operations** (a la Wikipedia) - you can adjust it with a few clicks





Georeferencer

<http://player.vimeo.com/video/36419466>

www.georeferencer.com

**LIBRARY
HSILIRB**



Georeferencer

- ~ 3D visualization (Google Earth)
- ~ Accuracy analysis (MapAnalyst)
- ~ **Bounding Box** (metadata enrichment)
- ~ Institution can internally generate geodata (GeoTIFF)
- ~ Optional: WMS and WMTS for scanned maps in libraries. One per revision.



Georeferencer

- ~ **No need to install anything** in the institution or even submit the high resolution images!
- ~ **Cloud application** - it runs as a service.
- ~ The scans are **hosted only in the original institution digital repository** or websites (Zoomify, MrSID, Djatoka, IIPImage JPEG2000, Luna, ContentDM, Omeka, ExLibris, etc.)



Georeferencer

- ~ **Easy integration** with the institution website with a simple API and “intelligent links”.
Widgets & live data outputs available.





Georeferencer

- ~ **Enhanced crowdsourcing support:**
- ~ Motivation, competition, rewarding, progress indicators, graphs - live widgets to include in the websites of the library





Georeferencer

- ~ The British Library Pilot: **720+ maps done in less than a week by online visitors!**
- ~ Dutch Nationaal Archief: closed group of 13 volunteers, 650 difficult maps in a month
- ~ National Library of Scotland, first open pilot
- ~ MZK Czech Republic: students





LIVE DEMO
maps.bl.uk
crowdsourcing widgets



Georeferencer

- ~ Development started and continues in collaboration with R&D department of **Moravian Library in Brno, Czech Republic.**
- ~ Target: open platform for personal online research.
- ~ Under development: Semantic annotations (LinkedData), URI (Identifiers) with detection of duplicates and automatic georeferencing, map series, etc.



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... thank you ...