



UNIVERSIDAD POLITÉCNICA DE MADRID

ESF Eurocores Workshop - DynCoopNet
Dynamic complexity of cooperation based self-organizing
networks in the first global age

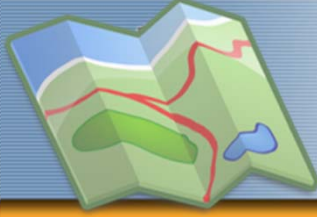
The Challenges of Generating Digital Map Libraries for Historical Research

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Willington Siabato
Javier Moya

Laboratory of Geographical Information Technologies
Technical University of Madrid (UPM)



September 25-26, 2008 - Madrid, Spain



The Challenges of Generating Digital Map Libraries for Historical Research

MOTIVATION

- Internet is and will be the powerful tool which gives way to different online communication options on geographical approaches.
- Historians and documentary experts need to access remotely to every existing information, that can be compiled in a single place to facilitate the access and comparison.
- They have established a number of well-defined international standards ISO 23950 (Z39.50) and OAI.





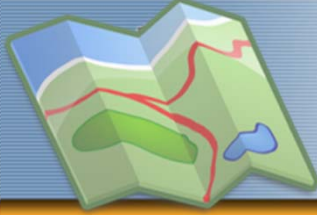
The Challenges of Generating Digital Map Libraries for Historical Research

MOTIVATION

- Nevertheless, not many cooperative projects have been set off so far by a group of map libraries to simultaneously and remotely access several historical cartographic funds:
 - Tools allow remote access to a GI repository from a single Website
 - Access to information and the comparison of some documents located in different servers
 - Cataloguing and visualization Web tools
- Digital Map Library (DML) supported by the Spatial Data Infrastructure (SDI) guidelines.

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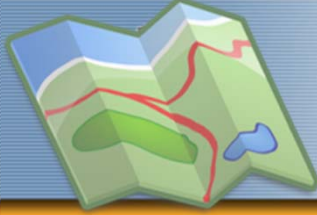
The Challenges of Generating Digital Map Libraries for Historical Research

THE SDI FRAMEWORK

- SDI combine distributed data and services by an interoperable way to be used in traditional GIS or in geoportals within various geoprocessing and utility stages
- Geoportals provide tools to visualize, explore and download information, in addition to search.
- Geographical browsing functionalities are essential to “play with maps”.
- Based on data harmonization, compatibility and interoperability of the systems
- Several players take part

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The Challenges of Generating Digital Map Libraries for Historical Research

THE SDI FRAMEWORK

Open Geospatial Consortium (OGC) Services

- Commercial options and OpenSource for their implementation
- OGC specifications applied to the cartographic heritage field:

WMS – Web Map Service

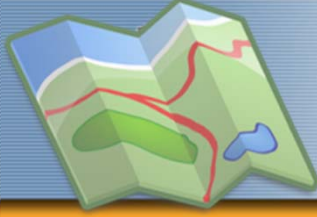
WFS – Web Feature Service

CSW – Catalogue Service on the Web

- Geographic Metadata: make data identifiable, understandable and readily shared by users on the long term (ISO 19115, Dublin Core, Spanish Metadata Core Profile)

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The Challenges of Generating Digital Map Libraries for Historical Research

THE SDI FRAMEWORK

Geographic Information Policies and Agreements

- To share information, and to coordinate and monitor the processes
- So far SDIGER. Now the INSPIRE Directive
- Paying attention to the necessary spatial information for environmental policies and in other sectors
- A national SDI covering the three levels (national, regional & local) is needed





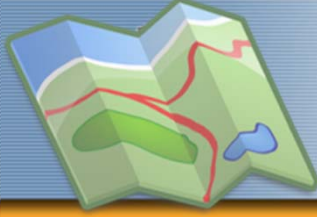
The Challenges of Generating Digital Map Libraries for Historical Research

SPECIAL REQUIREMENTS OF DML

Policies and Data Sharing Schema

- INSPIRE is a good case in point for high level community policies among environmental and GI authorities to follow and carry out cooperation agreements between libraries and archives
- However, the cartographic heritage is not to be included within the thematic information layers defined in INSPIRE (Annex 3)...
WHY???
- Because some special remarks make it difficult...



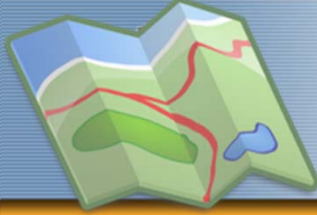


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SPECIAL REQUIREMENTS OF DML

1. The policies operating in the environmental -GI scope among the various European and world agencies are clearly different from the ones operating in the cultural- heritage scope
 - the latter is more restrictive as property rights
 - people involved are quite different



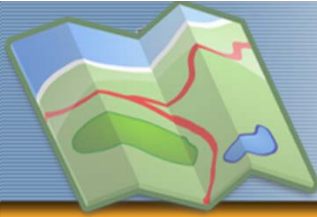


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SPECIAL REQUIREMENTS OF DML

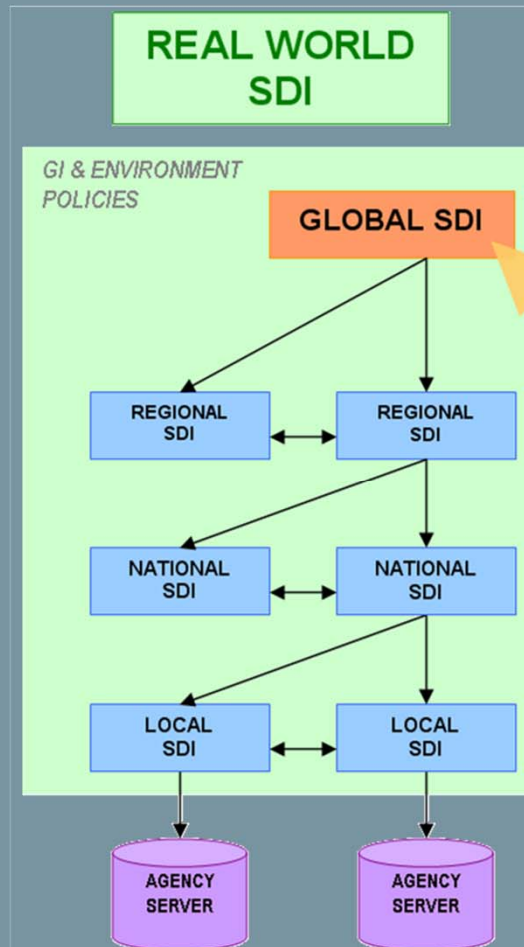
2. Different hierarchical levels of the traditional SDI umbrella, the impossibility of harmonization with the cartographic heritage appears evident
 - map collections in a local library represent GI of any part of the world
 - there will always be documents of a geographic region distributed throughout the map libraries of the world
 - the entire information should be offered in spite of its repetition
 - any local DML will offer its data through a world browser
 - both local and global DMLs need to be supported by a world SDI giving them modern GI coverage

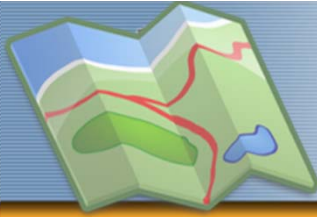




The Challenges of Generating Digital Map Libraries for Historical Research

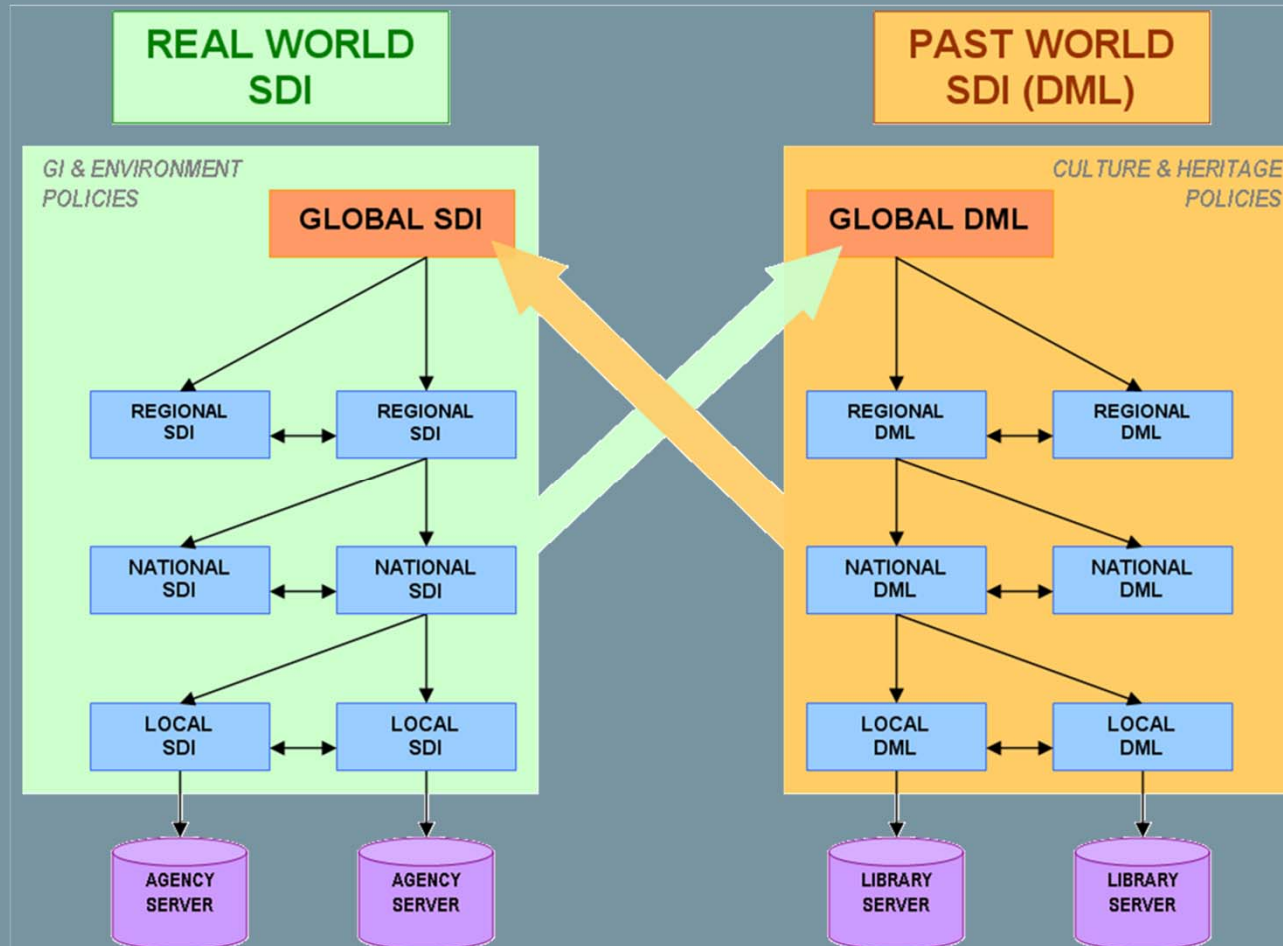
SPECIAL REQUIREMENTS OF DML





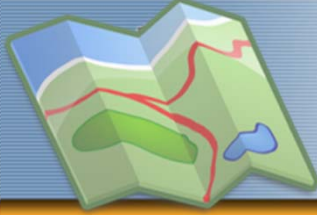
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SPECIAL REQUIREMENTS OF DML



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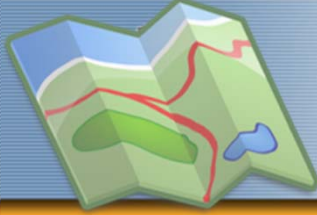


The Challenges of Generating Digital Map Libraries for Historical Research

SPECIAL REQUIREMENTS OF DML

- The strategy to follow consists of creating DMLs in a local environment
- Interoperability provided by the standards and metadata should always be taken into account
- From there, to work up links with other map libraries or to group all of them in a wider distributed information system
- Local DMLs will nourish the higher levels until the last link of the pyramid is achieved –the world DML
- The need for global GI to browser in all the existing funds of a particular geographic region





The Challenges of Generating Digital Map Libraries for Historical Research

CONSIDERATIONS IN DML

- Basic similarities between the global reality of a SDI as a distributed Geoportal and a DML: Standards and services.
- Specific technological and policy considerations :
 - generic bibliographic metadata schemas
 - georeference process: bounding box
 - Additional historical information
- Usability and users play an important role when dealing with DML interface design.





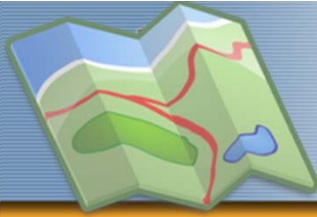
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ONLINE EXAMPLES

The DML Prototype

- The DML of the Canary Islands is a Internet portal with access to a Map Server and a Catalogue containing the historical maps and plans of the Canary Islands.
- DML services in a local SDI prototype. Visualization and query tools were used from standardized OGC Services.
- Methodology:
 - Digitization & Georeferencing,
 - Metadata creation & cataloguing,
 - Map Server & Web interface configuration

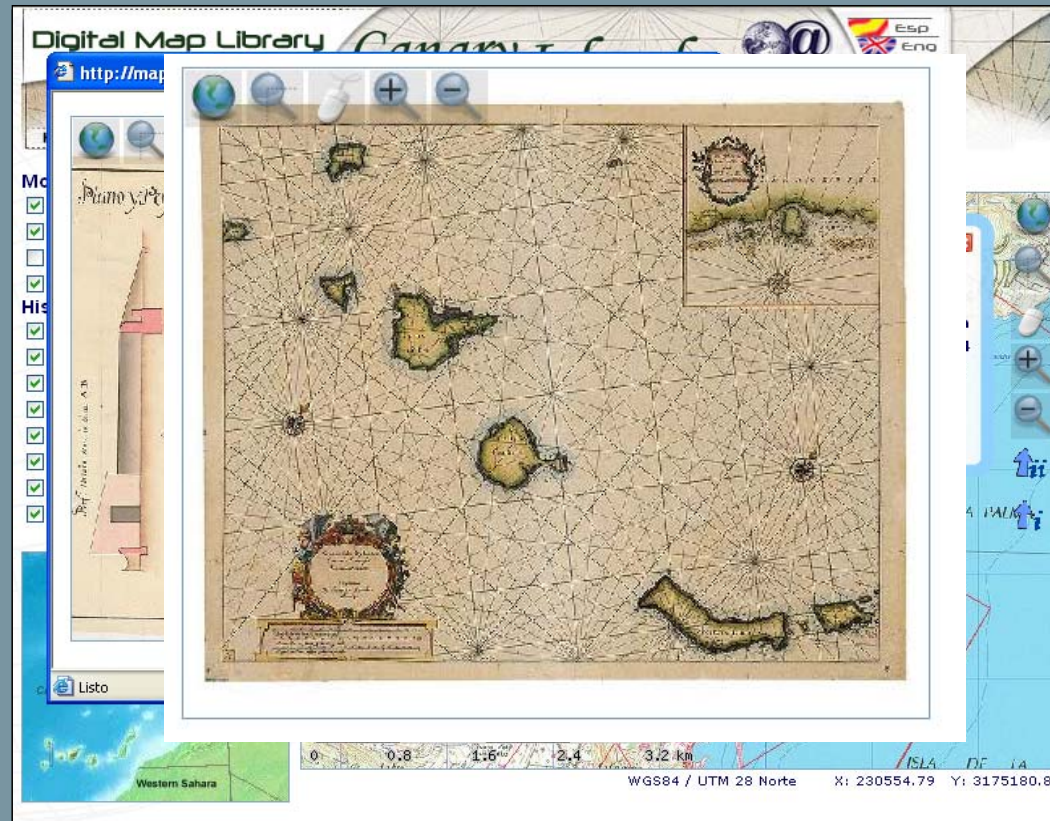




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ONLINE EXAMPLES

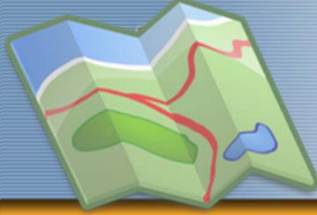
The DML Prototype



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<http://www.digitalmaplibrary.org>



The Challenges of Generating Digital Map Libraries for Historical Research

THE DML PROTOTYPE

Cartoteca Virtual Prototipo servidor de: Catálogo, Metadatos y Visualización grupo mercator

Find Interactive Maps, GIS datasets, Satellite Imagery and Related Applications

Free Text: [input] [Advanced search]

Location: is [dropdown] - Any - [dropdown] [Remote search]

Map type: Digital Paper

SEARCH RESET

matching search criteria : 8

Plano del Muelle. TF-8-20
 Documento impreso de 1755 correspondiente a la planta del Muelle. La escala es 1:500 y se utilizó la vara castellana. Fue realizado en Tenerife por Fran...more...

Plano, Perfil, y elevacion del Muelle de Santa Cruz de Tenerife segun debe quedar a la Conclusion de su Reparación. TF-8-16
Abstract: Documento impreso de 1785 correspondiente al plano, perfil, y elevación del Muelle de Santa Cruz de Tenerife según debía quedar concluida su reparación. Hay varias escalas, y se utilizó como unidad de...more...
Purpose: Creación de una Cartoteca Histórica Virtual de las Islas Canarias a partir de los fondos documentales de diversas instituciones cartográficas (mapas y planos). - Create a Digital Map Library of the C...more...
Keywords: Cartography, Military, Heritage, Canary Islands.

Plano, Perfiles y Elevaciones del nuevo fuerte de Sn. Miguel. TF-8-9
Abstract: Documento impreso de 1792 correspondiente al plano, perfiles y elevaciones del nuevo Fuerte de San Miguel. La escala es 1:150 y se utilizó como unidad de medida la vara castellana. Fue realizado en S...more...

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<http://www.digitalmaplibrary.org>



The challenges of generating Digital Map Libraries for historical research

THE DIGMAP PROJECT

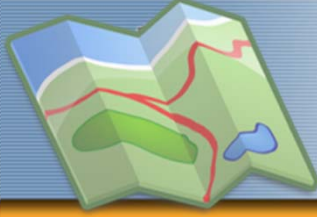
- DIGMAP stands for “Discovering our Past World with Digitised Historical Maps”, but it could stand also for “digging on maps”!
- Project co-funded by the EC eContentplus Programme. It started in October 2006 for being developed in 2 years. So... we are finishing. ☺

Partners

- Instituto Superior Técnico - IST (Portugal)
- Technical University of Madrid - UPM (Spain)
- National Library of Portugal BN (Portugal)
- Royal Library of Belgium KBR (Belgium)
- Biblioteca Nazionale Centrale di Firenze - BncF (Italy)
- National Library of Estonia - NLE (Estonia)
- Bulgarian Academy of Sciences - IMI (Bulgaria)

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The challenges of generating Digital Map Libraries for historical research

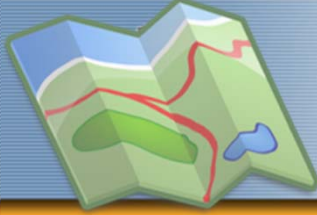
THE DIGMAP PROJECT

- Partners
 - Technology
 - **IST (Portugal)**
 - Cartography
 - **UPM (Spain)**
 - Libraries
 - **BN (Portugal)**
 - **KBR (Belgium)**
 - **BncF (Italy)**
 - **NLE (Estonia)**
 - Dissemination
 - **IMI (Bulgaria)**
- Multilingualism
 - Partners languages
 - Bulgarian
 - Dutch
 - Estonian
 - French
 - Italian
 - Portuguese
 - Spanish
 - English
 - Other European languages to be also considered:
 - German, Russian, ...



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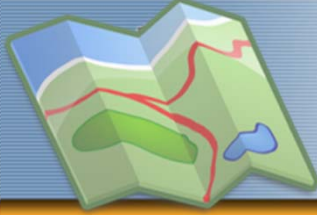
The challenges of generating Digital Map Libraries for historical research

THE DIGMAP PROJECT

- DIGMAP explores environments for browsing and searching by human users, as well as services for interoperability with external information systems
- Comprises techniques for the automatic extraction of metadata from images of digitized maps, digitized books and Websites, gathering of metadata from remote services, etc.
- The software solutions that have been produced are able to be reused in other digital libraries, for standalone services, or as components integrated with other libraries. (Integration – Complete integration through servers)
- The information architecture follows open data models, namely those already defined by the OGC.

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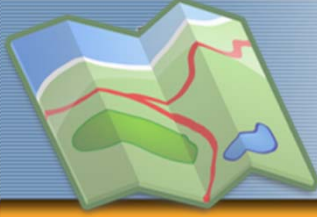


The challenges of generating Digital Map Libraries for historical research

THE DIGMAP PROJECT

- The first year we produced a service prototype.
- Relevant standards and technology were used in the first DIGMAP Service Prototype and consecutives:
 - Descriptive metadata: mainly UNIMARC, MARC21 and Dublin Core
 - Geographical Information: ISO 19000 family of standards
 - Thesauri: ISO 5964 - Guidelines for Multilingual Thesauri
 - Core Technology: Web-Services, Ajax, RDF, XML Schemas, etc.
- DIGMAP towards the goal of becoming the main international information source and reference service for old maps and related bibliography.





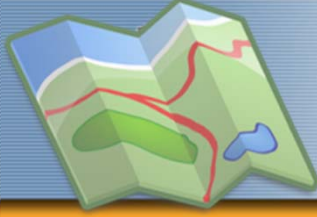
The challenges of generating Digital Map Libraries for historical research

THE DIGMAP PROJECT

DIGMAP has produced...

- A new international open service for resource discovery: “International Catalogue of Digitized Ancient Maps”
- Two new international professional services: “European Multilingual Geographic Thesaurus”; “International Authority Database of Maps Engravers, Editors and Printers”
- A new reusable open-source technology for digital libraries of digitised maps (catalogue management, thesauri management, features extraction from images, metadata transformation, search and retrieval, interoperability, etc.)





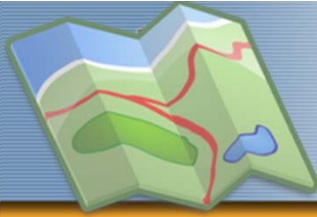
The challenges of generating Digital Map Libraries for historical research

THE DIGMAP PROJECT

DIGMAP will promote...

- The development of European collaborative networks for reference, description, cataloguing, indexing and classification of ancient maps.
- Innovative ways to integrate/interoperate with TEL – The European Library





The challenges of generating Digital Map Libraries for historical research

	Lite...	...Full	Super
Browsing Index	x	x	x
MIND			
Timeline	(IST)	(x)	x
GeoBrowser	(IST)	(x)	x
Search Engine		x	x
Forum		(x)	x
RED		x	x
nail.map	(IST)	(x)	x
cat.on.map		(x)	x
GeoIndexer		x	x
REPOX-Lite		x	x
MapIndexer		(x)	x
GeoParser	(IST)	(x)	x
Gazetteer			

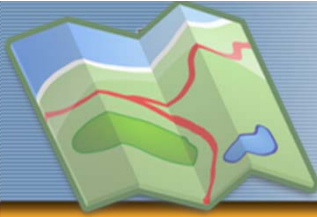
 User Interface

 Catalogue

 Indexer & Thesauri

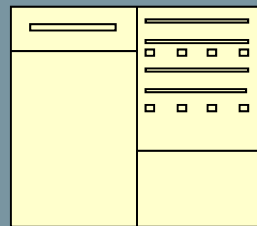
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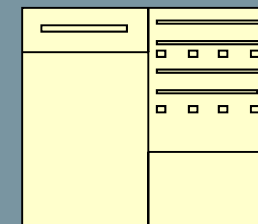
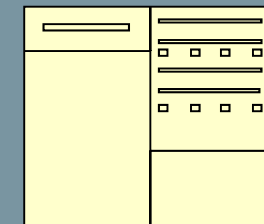
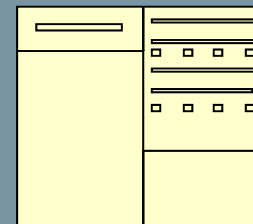
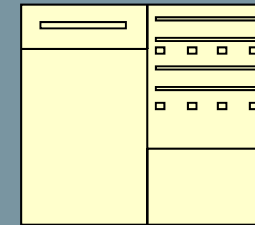


The challenges of generating Digital Map Libraries for historical research

Independent
Standalone

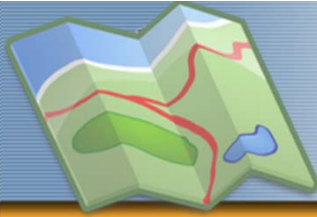


Shared
Distributed



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The challenges of generating Digital Map Libraries for historical research

DIGMAP Portal



DIGMAP es un servicio para descubrir recursos y acceder a **mapas antiguos** y otros contenidos relacionados, atendiendo a su información geográfica (more...)

Language: Español (es/spa) ▾

Discovering
the Past World with
Digitised Maps

Teclado virtual

Buscar

Búsqueda avanzada

Navegar por: [Autores](#) | [Lugares](#) | [Dates](#) | [Colecciones](#)

NOTICIAS

DIGMAP was presented in the LIBER 2008



The 16th Conference of the LIBER Groupe des Cartothécaires was held in Amsterdam, the Netherlands, from 1 - 4 July

[FORO DIGMAP](#)

A PARTIR DE NUESTROS COLECCIONES...



[Carta geometrica del Granducato di Toscana divisa per circondari comunitativi](#)
Manetti, Gaspero
[National Central Library of Florence](#)

[View Record](#)



[Carta Flandriae + tempore + Guidonis comitis Flandriae anno 1273](#)
[Royal Library of Belgium](#)

[View Record](#)

A PARTIR DE NUESTROS MAPAS



Servicios DIGMAP: [Geoparser](#) | [Gazetteer](#) | [Map Indexer](#) | [nail.map](#) | [cat.on.map](#) | [Map Services](#) | [Wiki](#)



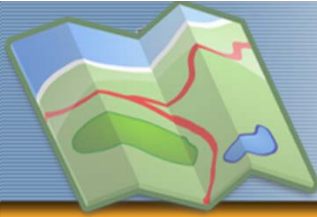
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Contacto: digmap@digmap.eu

Proyecto co-financiado por el programa de la Comisión Europea [eContentplus](#)
(contrato [ECP-2005-CULT-038042](#) :: DIGMAP)



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The challenges of generating Digital Map Libraries for historical research

Author Index - DIGMAP - Discovering our Past World with Digitised Maps - Opera

Archivo Edición Ver Marcadores Widgets Herramientas Ayuda

Author Index - DIGMAP - ... Nueva pestaña

http://portal.digmap.eu/index/geral/aut/EN/index.html

DIGMAP

DIGMAP is a service for resource discovery and access to **old maps** and related resources, with a focus on their geographic information (more...)

DIGMAP > ... all collections ... > Author Index

[A] - 762 names
[B] - 1283 names
[C] - 1343 names
[D] - 725 names
[E] - 536 names
[F] - 558 names
[G] - 817 names
[H] - 606 names
[I] - 262 names
[J] - 453 names
[K] - 290 names
[L] - 906 names
[M] - 1191 names
[N] - 261 names
[O] - 210 names
[P] - 922 names
[Q] - 31 names
[R] - 722 names
[S] - 1177 names
[T] - 418 names
[U] - 119 names
[V] - 446 names
[W] - 471 names
[X] - 5 names
[Y] - 22 names
[Z] - 77 names

Authors by 'A':

- [A. & C. Black](#) [10 / 10 mapped]
A & C Black
A & C BLACK
- [A. & J. Churchill](#) [1]
A. & J. Macpherson, [2]
A. and J. Churchill (Booksellers : London, England), [8]
- [A. Bescós](#) [1]
- [A. BRUE](#) [4 / 2 mapped]
- [A. Constable & Co.](#) [3]
- [A. DUFOUR](#) [1 / 1 mapped]
- [A. E. LAPIE](#) [8 / 7 mapped]
- [A. Findlay](#) [2 / 2 mapped]
- [A. FULLARTON](#) [24 / 1 mapped]
A. Fullarton & Co.
A. Fullarton & Co. The Royal illustrated atlas of modern geography, [1]
- [A. H. PETERMANN](#) [2 / 2 mapped]
- [A. Hartleben's Verlag](#), [1]
- [A. Hoen & Co.](#) [1]
- [A. Hoen and Company](#) [1]
- [A. Ilin \(Firm\)](#) [1]
- [A. J. JOHNSON](#) [2 / 2 mapped]
- [A. J. Taylor, Sillar & Millett](#), [1]
- [A. Lopez Robert?](#) [1]
- [A. M. Mallet](#) [2 / 2 mapped]
A. M. MAILLET
- [A. M. PERROT](#) [1 / 1 mapped]
- [A. MANESSON-MALLET](#) [1 / 1 mapped]
- [A. Martin](#) [1]
A. Martin, editor: dins: Carreras Candi, F. [1]
A. Martin editor [2]
- [A. ORTELIUS](#) [1 / 1 mapped]
- [A. PETERMANN](#) [3 / 3 mapped]
- [A. REES](#) [1 / 1 mapped]
- [A. S. Barnes & Co.](#) [2]
- [A. STIELER](#) [1 / 1 mapped]
- [A. ZATTA](#) [1 / 1 mapped]
- [Aa. P. van der](#) [3]
Aa. P. van der (?)

A. E. LAPIE

Mapa

1000 mi
2000 km

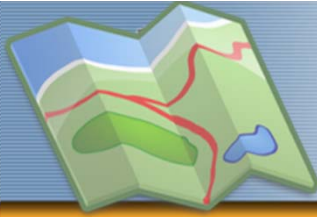
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Datos de mapa ©2008 Europa Technologies - Términos de uso

Select/Hide All [Feed](#)

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The challenges of generating Digital Map Libraries for historical research

Date Index - DIGMAP - Opera

Archivo Edición Ver Marcadores Widgets Herramientas Ayuda

DIGMAP DIGMAP DIGMAP Date Index - DIGMAP Nueva pestaña

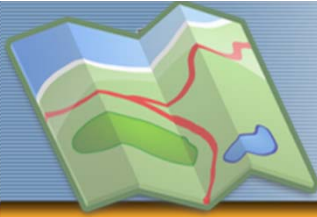
http://portal.digmap.eu/index/geral/date/EN/index.html

DIGMAP is a service for resource discovery and access to old maps and related resources, with a focus on their geographic information (more...)

DIGMAP > ... all collections ... > Date Index

Century [Resources]	XIV [7]	XV [23]	XVI [591]	XVII [2388]	XVIII [5379]	XIX [13942]	XX [17136]
1301	1401	1501	1601[17]	1701[28]	1801[50]	1901[156]	
1302	1402	1502[1]	1602[9]	1702[41]	1802[62]	1902[192]	
1303	1403	1503	1603[12]	1703[61]	1803[46]	1903[230]	
1304	1404	1504	1604[7]	1704[77]	1804[65]	1904[332]	
1305	1405	1505	1605[5]	1705[100]	1805[51]	1905[187]	
1306	1406	1506	1606[28]	1706[76]	1806[67]	1906[188]	
1307	1407	1507	1607[15]	1707[41]	1807[108]	1907[111]	
1308	1408	1508[5]	1608[7]	1708[39]	1808[72]	1908[104]	
1309	1409	1509[1]	1609[17]	1709[44]	1809[108]	1909[113]	
1310	1410	1510	1610[10]	1710[73]	1810[81]	1910[111]	
1311	1411	1511	1611[9]	1711[21]	1811[64]	1911[94]	
1312	1412	1512	1612[18]	1712[71]	1812[105]	1912[128]	
1313	1413	1513[5]	1613[9]	1713[19]	1813[109]	1913[120]	
1314	1414	1514	1614[2]	1714[29]	1814[61]	1914[148]	
1315	1415	1515	1615[3]	1715[40]	1815[47]	1915[190]	
1316	1416	1516	1616[33]	1716[20]	1816[55]	1916[66]	
1317	1417	1517	1617[31]	1717[20]	1817[41]	1917[100]	
1318	1418	1518	1618[16]	1718[24]	1818[60]	1918[142]	
1319	1419	1519	1619[10]	1719[103]	1819[56]	1919[114]	
1320	1420	1520[1]	1620[8]	1720[71]	1820[85]	1920[204]	
1321	1421	1521	1621[20]	1721[19]	1821[50]	1921[110]	
1322	1422	1522[1]	1622[8]	1722[25]	1822[62]	1922[187]	
1323	1423	1523	1623[5]	1723[6]	1823[49]	1923[160]	
1324	1424	1524	1624[16]	1724[23]	1824[58]	1924[227]	
1325	1425	1525[1]	1625[14]	1725[68]	1825[63]	1925[190]	
1326	1426	1526	1626[6]	1726[32]	1826[72]	1926[128]	
1327	1427	1527[1]	1627[18]	1727[17]	1827[83]	1927[107]	
1328	1428	1528	1628[17]	1728[20]	1828[44]	1928[99]	
1329	1429	1529[1]	1629[4]	1729[47]	1829[66]	1929[94]	
1330	1430	1530[3]	1630[75]	1730[78]	1830[67]	1930[230]	
1331	1431	1531	1631[24]	1731[14]	1831[104]	1931[139]	
1332	1432	1532[2]	1632[40]	1732[19]	1832[198]	1932[136]	
1333	1433	1533[1]	1633[30]	1733[21]	1833[102]	1933[174]	






The challenges of generating Digital Map Libraries for historical research



DIGMAP is a service for **resource discovery and access** to old maps and related resources, with a focus on their geographic information...

Language English ▾

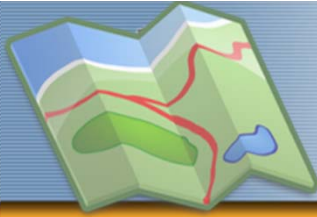
[Advanced Search](#)

- All (41703 files)
-  National Library of Portugal (BNP) (<http://www.bn.pt> - 6043 files)
-  National Library of Estonia (NLE) (<http://www.nlib.ee> - 2198 files)
-  National Central Library of Florence (BNCF) (<http://www.bncf.firenze.sbn.it> - 5808 files)
-  Royal Library of Belgium (KBR) (<http://www.kbr.be> - 5345 files)
-  National Geographic Institute of Spain (IGN) (<http://www.ign.es> - 10939 files)
-  OAI-PMH (8364 files)
-  Others (3006 files)

Contact: digmap@digmap.eu

Project co-funded by the Community programme **eContentplus** (contract ECP-2005-CULT-038042)





The challenges of generating Digital Map Libraries for historical research



DIGMAP is a service for **resource discovery and access** to old maps and related resources, with a focus on their geographic information...

Language Português ▾

Pesquisa Avançada

<input type="text"/>	Título	<input type="text"/>	<input checked="" type="radio"/> Tudo (41703 ficheiros)
<input type="text"/>	Autor	<input type="text"/>	<input type="radio"/> Biblioteca Nacional de Portugal (BNP) (http://www.bn.pt - 6043 ficheiros)
<input type="text"/>	Colaborador	<input type="text"/>	<input type="radio"/> Biblioteca Nacional da Estónia (NLE) (http://www.nlib.ee - 2198 ficheiros)
<input type="text"/>	Data	<input type="text"/>	<input type="radio"/> Biblioteca Nacional Central de Florença (BNCF) (http://www.bncf.firenze.sbn.it - 5808 ficheiros)
<input type="text"/>	Editor	<input type="text"/>	<input type="radio"/> Biblioteca Nacional da Bélgica (KBR) (http://www.kbr.be - 5345 ficheiros)
<input type="text"/>	Assunto	<input type="text"/>	<input type="radio"/> Instituto Geográfico Nacional de Espanha (IGN) (http://www.ign.es - 10939 ficheiros)
<input type="text"/>	Descrição	<input type="text"/>	<input type="radio"/> OAI-PMH (8364 ficheiros)
<input type="text"/>	Texto livre	<input type="text"/>	<input type="radio"/> Others (3006 ficheiros)
<input type="text"/>	Com todas as palavras	<input type="text"/>	
<input type="text"/>	Com a frase exacta	<input type="text"/>	
<input type="text"/>	Com pelo menos uma das palavras	<input type="text"/>	
<input type="text"/>	Sem as palavras	<input type="text"/>	
<input type="text"/>	SITE (ex: purl.pt/1)	<input type="text"/>	

Pesquisar

Contact: digmap@digmap.eu

Project co-funded by the Community programme eContentplus (contract ECP-2005-CULT-038042)



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The challenges of generating Digital Map Libraries for historical research

Geoparser service



DIGMAP Text Mining Services

This service can parse textual documents and recognize named entities in the text. Geographical entities are disambiguated into the corresponding identifiers in the [DIGMAP gazetteer](#). A set of supporting text mining services is also provided, such as language recognition.

This page provides a simple form for testing the service. Users can provide textual sentences, and the service will reply with an XML document containing the geoparsing results. Separate pages provide more advanced examples, showing how to use the [geoparser as an XML Web service](#), or presenting a [time-map exploration interface](#) for geoparsed RSS feeds.

Geoparse the Textual Contents

The next sentence is an example: Antonio Telo is one of the most active professional historians in Portugal, specializing in the history of the 20th century.

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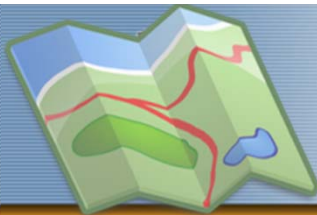


The challenges of generating Digital Map Libraries for historical research

```
GeoparseResult xsi:schemaLocation="http://www.opengis.net/gp
../gp/GetFeatureRequest.xsd http://www.opengis.net/wfs
../wfs/GetFeatureRequest.xsd">
-
<EntryCollection>
+
<Person entryID="0">
<TermName>Antonio Telo</TermName>
+
<PlaceName entryID="1">
<TermName>Portugal</TermName>
+
<DateTime entryID="2">
<TermName>20th century</TermName>
.
.
.
</AnnotatedText>
</GeoparseResult>
```



The challenges of generating Digital Map Libraries for historical research



Timeline © SIMALE

53 54 55 56 57 58 59 16:00 1 2 3 4 5

Sep 20 Sep 21 Sep 22 Sep 23 Sep 24 Sep 25 Sep 26 Sep 27 Sep 28 Sep 29 Sep 30 Oct 1

Mapa Satélite Relieve

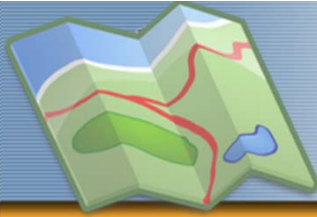
United States, México, North Pacific Ocean, North Atlantic Ocean, Gulf of Mexico, Venezuela, Colombia, Brasil, Perú, Bolivia, Paraguay, Chile, Argentina, South Pacific Ocean, South Atlantic Ocean, España, Italia, Francia, Grecia, Turquía, Morocco, Algeria, Libya, Egypt, Mauritania, Mali, Niger, Chad, Sudan, Nigeria, Ethiopia, Kenya, Som, DR Congo, Tanzania, Angola, Zambia, Mozambique, Namibia, Zimbabwe, Botswana, Mada, South Africa

GeoParse
[New URL](#)
[Help](#)
0:00
follow
[XML Service](#)

POWERED BY Google

Datos de mapa ©2008 MapLink/Tele Atlas, AND, Tele Atlas, Europa Technologies - [Terminos de uso](#)





The challenges of generating Digital Map Libraries for historical research

Gazetteer service


The screenshot shows the DIGMAP website interface. At the top left is the DIGMAP logo, a colorful starburst. To its right is the word "DIGMAP" in a bold, sans-serif font. Further right is the word "Gazetteer" in a smaller, bold font. On the far right, a small text block reads: "DIGMAP is a service for resource discovery and access to old maps and related resources, with a focus on their geographic information...". Below the logo is a green box with the text "Discovering our Past World with Digitised Maps". Underneath is a search bar with a "search" button. Below the search bar is a section titled "Service Interfaces" with three bullet points: "URN", "ADL General Protocol (ADL-GP)", and "ADL-GP with OAI response". At the bottom left of the interface is the contact email "digmap@digmap.eu". At the bottom right is a small text block: "Project co-funded by the Community programme eContentplus (contract ECP-2005-CULT-038042)" next to the European Union flag.








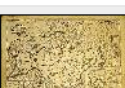


The challenges of generating Digital Map Libraries for historical research


MapIndexer service

 **DIGMAP MapIndexer** Indexed Maps DIGMAP is a service for resource discovery and access to old maps and related resources, with a focus on their geographic information (more...)

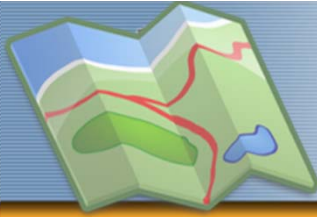
Resources | Feature Terms | Administración | Help Change Language: Español

Map Identifier	Modified
 http://purl.pt/3927/1/cc-1735-a_JPG/cc-1735-a_JPG_24-C-R0072/cc-1735-a_0001_1_p24-C-R0072.jpg Ver Editar Borrar	2008/09/25 16:42:27
 http://purl.pt/5053/2/cc-1230-r_JPG/cc-1230-r_JPG_24-C-R0072/cc-1230-r_0001_1_t24-C-R0072.jpg Ver Editar Borrar	2008/09/24 20:33:39
 http://purl.pt/400/1/il-171_JPG/il-171_JPG_24-C-R0150/il-171_0009_14-15_t24-C-R0150.jpg Ver Editar Borrar	2008/09/24 02:01:04
 http://purl.pt/400/1/il-171_JPG/il-171_JPG_24-C-R0150/il-171_0008_12-13_t24-C-R0150.jpg Ver Editar Borrar	2008/09/12 02:26:52
 http://purl.pt/400/1/il-171_JPG/il-171_JPG_24-C-R0150/il-171_0007_10-11_t24-C-R0150.jpg Ver Editar Borrar	2008/09/08 19:15:45
 http://www.oldmap.co.uk/ISLE-OF-WIGHT-old-Map.jpg Ver Editar Borrar	2008/09/08 19:15:36

DIGMAP Services: [Geoparser](#) | [Gazetteer](#) | [Map Indexer](#) | [nail.map](#) | [cat.on.map](#) | [Map Services](#) | [Wiki](#)

©2008 All Rights Reserved. Contact: digmap@digmap.eu Current Time: 2008-09-25T17:59:58+0100 Project co-funded by the Community programme [eContentplus](#) (contract [ECP-2005-CULT-038042](#) :: DIGMAP) 



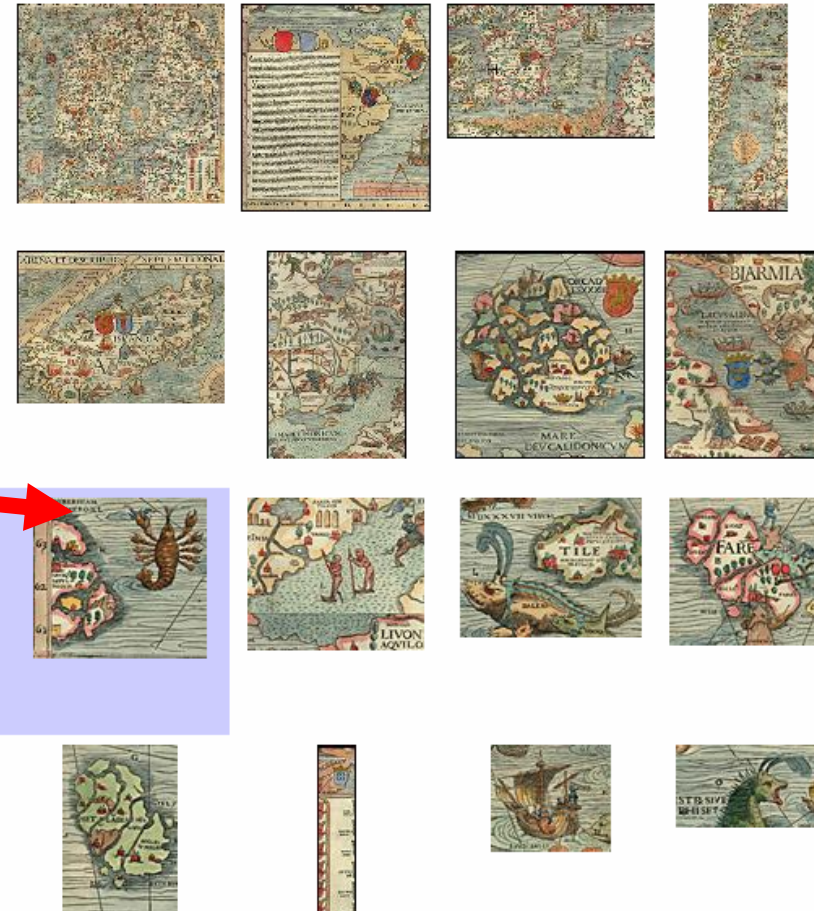
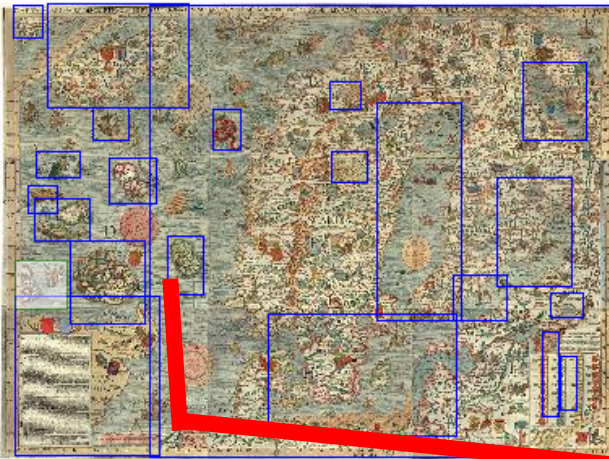


The challenges of generating Digital Map Libraries for historical research

DIGMAP Indexer Service: segmented olauus_L.jpg with GradientMagnitudeSegmentation

[<< Back to index](#)

Source image

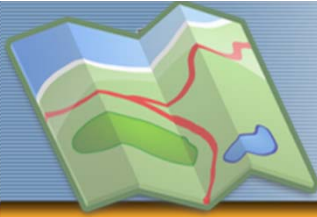


The algorithm started by detecting 87 segments, from which 23 were also automatically selected in a second step. Human selection will select the definitive relevant features...

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http://www.helmink.com/Antique_Map_Plancius_World/Scans/Plancius%20World%202.jpg



The challenges of generating Digital Map Libraries for historical research

Thumbnail Service



DIGMAP Thumbnail Service

This service can generate thumbnails for HTML pages, PDF documents or raster images. These thumbnails can either be PNG files, for usage in the DIGMAP user interface, or GeoTIFF files, for incorporation into a Web mapping interface.

Generate PNG thumbnail

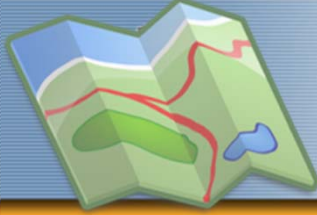
URL	<input type="text" value="http://digmap1.ist.utl.pt:8080/nail.map/DIGMAP_logo.png"/>
Width	<input type="text" value="160"/>
Height	<input type="text" value="100"/>
Transparency	<input type="text" value="false"/>
Rotation	<input type="text" value="0"/>

Generate PNG thumbnail with a transparency window

URL	<input type="text" value="http://digmap1.ist.utl.pt:8080/nail.map/DIGMAP_logo.png"/>
-----	--

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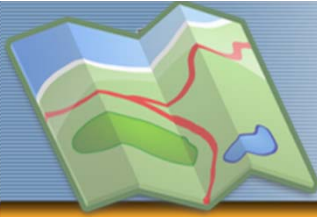
The challenges of generating Digital Map Libraries for historical research

cat.on.map service

The screenshot shows the login interface for the cat.on.map service. At the top left, there is a logo with a compass rose and the text 'cat.on.map'. Below it is a link 'Iniciar sesión'. The main heading is 'Iniciar sesión' in green. The login form contains the following elements:

- Nombre de usuario**: A text input field containing the value 'wsiabato'.
- Contraseña**: An empty password input field.
- Recordarme
- Iniciar Sesión**: A button to submit the login form.
- Recibir su contraseña por correo electrónico: A button to request a password reset.

At the bottom of the page, there is a footer with the text: 'Versión 1.0-SNAPSHOT | XHTML Valid | CSS Valid | Current Time: 2008-09-25T15:34:42+0100'. On the left side of the footer, there is a link 'Visitor locations'.



The challenges of generating Digital Map Libraries for historical research

cat.on.map / admin / /farinha

Catalogue service for Online Maps.

Resources Collections Options Administration Help Logout

Collections > rfarinha > Resources Query

[First/Prev] 1 2 [Next/Last]

Title	URL
Michigan State	http://www.lib...
Carta da Colô	http://www.ty...
Carta da Col	http://www.ty...
Carta da Colô	http://www.ty...
Carta da Afr	http://www.ty...
Carta da Afr	http://www.ty...

cat.on.map / admin /

Catalogue service for Online Maps.

Resources Collections Options Administration Help Logout

Resource Information (Help)

URL: <http://www2.odl.ox.ac.uk/data/aaaaab/mapsxx003/digObjects/aau/3/mapsxx003-aau-0001-3.jpg> Edit

Title: Map of Africa as Matthias Quaden's Aphrica.

Description: Map of African continent and Arabia in Matthias Quad, Geographisch Handbuch.

Date: 1600

Geographic box:

Right-Top	57.1396714	141.345683
Left-Bottom	-58.876012	-90.685684

 Reset Select

Spatial Coverage: Africa Arabia

Scale:

Creator: Quaden, Matthias

Publisher: Bussebacher, Johann

Part of Resource:

Map of Africa as Matthias Quaden's Aphrica. (http://www2.odl.ox.ac.uk/~/library?e=d-000-00-...)


 Delete

Type: Map

Language: English

Collection: wvanderpijpen

Creation Date: 2007/08/06 10:44:47
Modification Date: 2007/11/19 17:44:17



Save Cancel

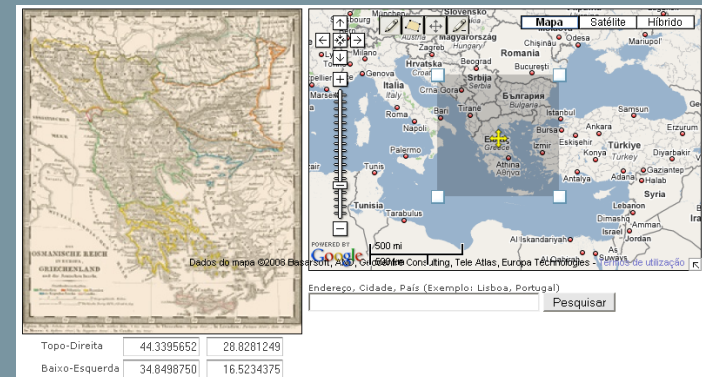
cat.on.map / admin /

Catalogue service for Online Maps.

Resources Collections Options Administration Help

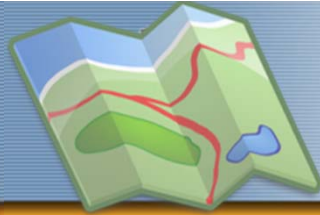
URL: <http://www2.odl.ox.ac.uk/data/aaaaab/mapsxx003/digObjects/aau/3/mapsxx003-aau-0001-3.jpg>

Match the world map to the area represented by the image and single-click on the world map to select the coordinates. Press the save button to pass the values to original page.



Topo-Direita	44.3395652	28.8281249
Baixo-Esquerda	34.8498750	16.5234375





The challenges of generating Digital Map Libraries for historical research

OSMANISCHE REICH
GRIECHENLAND

Mapa Satélite Híbrido

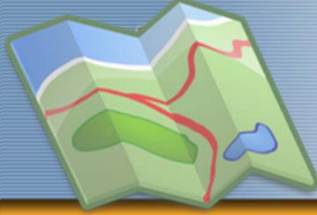
500 mi

Endereço, Cidade, País (Exemplo: Lisboa, Portugal)

Topo-Direita	44.3395652	28.8281249
Baixo-Esquerda	34.8498750	16.5234375


DIGMAP





The challenges of generating Digital Map Libraries for historical research

Map Services

 **DIGMAP** Map Services DIGMAP is a service for resource discovery and access to old maps and related resources, with a focus on their geographic information...
Change Language: Español

GeoIndexer

URL:	<input type="text" value="http://www.chinahighlights.com/image/map/ancient/ancient-map-taiwan_1896a.gif"/>
Thumb URL:	<input type="text"/>
Interface:	default
Submit Method:	xml
Submit URL:	<input type="text"/>
Resume Token:	<input type="text"/>
Current NE Lat:	<input type="text"/>
Current NE Lng:	<input type="text"/>
Current SW Lat:	<input type="text"/>
Current SW Lng:	<input type="text"/>

GeoBrowser

Feed:	<input type="text" value="../geobrowser/include/test-feed.xml"/>
Mode:	thumbs
Page Size:	25
Use Title:	true

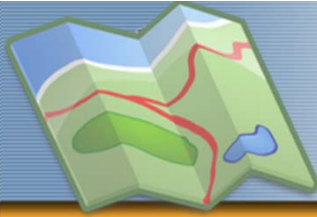
Examples:

- [Atlas by Fernao Vaz \(National Library of Portugal\)](#)
- [Atlas by Fernao Vaz \(National Library of Portugal\) \(using images stored on Wayback Machine\)](#)
- [Terms Example](#)

GeoTimes

Feed:	<input type="text" value="/xslt/exemplo-feed.xml"/>
WorkList:	<input type="text" value="/xslt/exemplo.xml"/>
Page Size:	25





The challenges of generating Digital Map Libraries for historical research

DIGMAP Test Version

Timeline view of historical maps from 1600 to 1714. Locations marked include Pologne, France, Finlande, Potosi, Panama, and Ca.

Panama information window:

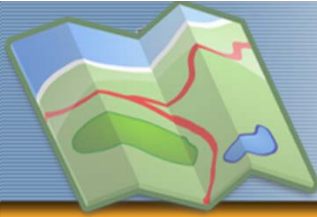
- Type: material cartográfico, impresso [Material cartográfico]
- Title: A new
- Language: eng
- Description: Monografía

Icons: Registo com thumbnail, Registo com URL, Registo apenas textual

Taskbar: Inicio, DigTimes [SIMI...], Eudora - [Out], Skype™ - a.f..., Varios, GT Patrimonio..., Factura optize..., Microsoft Pow..., 15:53

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The challenges of generating Digital Map Libraries for historical research

Arizona Memory Project Sharlot Hall Museum
Biblioteca Dr. Jorge Villalobos Padilla, S.J.
Centre de recherche en histoire des sciences et des techniques
Centre for Newfoundland Studies
Demetrius at The Australian National University
Digital Library of Wroclaw University
Digital Library of Zielona Góra
Divisão de Processamento de Imagens (DPI)
FIDES Digital Library
Fons digitals de la Cartoteca de Catalunya
George Mason University
Greifswalder Digitalen Bibliothek
Greifswalder Digitalen Bibliothek
Greifswalder Digitalen Bibliothek
Greifswalder Digitalen Bibliothek
Greifswalder Digitalen Bibliothek
Greifswalder Digitalen Bibliothek
Harold B. Lee Library
Institut de recherche pour le développement (IRD)
Internet Archive
Kujawsko-Pomorska Digital Library
Library of Congress
LOUISiana Digital Library (LDL)
LOUISiana Digital Library (LDL)
LOUISiana Digital Library (LDL)
Malopolska Digital Library
Malopolska Digital Library
Mary B. Ansari Map Library
Memorial University of Newfoundland's Digital Archive Initiative (DAI)
National Library of Australia
Oregon State University
Publication of Archival, Library & Museum Materials (PALMM)
Silesian Digital Library
Sistema Eletrônico de Editoração de Revistas
Technical Research Centre of Finland (VTT)
The Digital Research Library (DRL) of the University of Pittsburgh
The Digital Research Library (DRL) of the University of Pittsburgh
The University of Dublin – Trinity College
University of Illinois at Urbana-Champaign – University Library
University of Michigan Digital Library
University of Nevada, Las Vegas Libraries
University of Southern California Digital Archive
University of Southern California Digital Archive
University of Southern California Digital Archive
University of Wisconsin Milwaukee Libraries
Warsaw University of Technology Digital Library
Washington State University Libraries
Western Waters Digital Library (WWDL)
Western Waters Digital Library (WWDL)
Western Waters Digital Library (WWDL)

Map Collection
Mapas
geologic or topographic maps
Centre for Newfoundland Studies - Digitized Maps
Map Indexes
Cartographic materials contain digital copies.
Cartographic Materials
Map Collection
Maps, atlases
Mapes de Catalunya (s. XVII-XXI)
C. Harrison Mann, Jr. Digitized Map Collection
...Schwedischen Landesaufnahme von Vorpommern 1692 - 1709
Historische Karten allgemein
Historische Seekarten
Historische Katasterkarten
Internationale Weltkarten
Kartenwerk Deutscher Staedteatlas
Maps
Cartographic
Items with collection equal to maps_usgs
Maps
LC Maps
Louisiana State Museum Historical Map Collection
Maps of Louisiana
Northwest Louisiana Map Collection
Cartographic Materials
Maps (to 1939)
Historic Maps
Centre for Newfoundland Studies - Digitized Maps
Map Collection including map items from other collections
Scanned Maps
Florida Map Collection
Cartographic materials
Mapas Geológicos
Hydrographic survey and cartography
Darlington Digital Library Maps
Maps from the Report of the Flood Commission of Pittsburgh, 1912
Ordnance Survey Irish Historical Maps
Historical Maps Online
University of Michigan Nichols Arboretum Historical Maps and Plans
Las Vegas History in Maps
David Lee Collection
Shannon Boyd-Bailey McCune Collection
Sea of Korea Map Collection
WPA Land use survey maps for the City of Los Angeles, 1933-1939
American Geographical Society Library Digital Map Collection
Collection of ... and cartographic documents
Early Washington Maps: A Digital Collection
Early Washington Maps
UNLV - Las Vegas History in Maps
Overland Trails Diaries and Maps

37 OAI-PMH servers
(55 collections)
identified worldwide
(excluding TEL
members)

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UNIVERSIDAD POLITÉCNICA DE MADRID

ESF Eurocores Workshop - DynCoopNet
Dynamic complexity of cooperation based self-organizing
networks in the first global age

The challenges of generating Digital Map Libraries for historical research

Alberto Fernández Wyttenbach
Willington Siabato
Javier Moya

Laboratory of Geographical Information Technologies
Technical University of Madrid (UPM)



September 25-26, 2008 - Madrid, Spain