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MECME DIGITAL LIBRARY(Mediterranean Coastal Marine Environment Digital  
Library)

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## MECME DIGITAL LIBRARY (Mediterranean Coastal Marine Environment Digital Library)

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### ABSTRACT

In a world of global communication, it is necessary to develop technology of global digital libraries. In the US special grants are allowed in order to promote National Research Initiatives concerning the development of Digital Libraries and many are the Digital Library Community Activities (1). This paper describes the MECME Digital Library (Mediterranean Coastal Marine Environment DL) construction and its aims, its uniqueness and innovative purposes. Only another Digital Library in Italy covers up the fields of oceanography and marine biology. It is the "Laguna di Venezia Digital Library"(2).

### INTRODUCTION

MECME DL is a digital library which has been made up in order to collect multidisciplinary documents concerning scientific studies in the Mediterranean coastal areas and in particular in the Southern one, including research and survey papers on the Taranto Gulf in Italy ("Mar Grande and "Mar Piccolo" sea basins).

MECME DL is the result of a cooperation project between the Institute of Information Science and Technologies "A. Faedo" (ISTI-CNR), Pisa, Italy and the Institute of Marine Coastal Environment (IAMC-CNR), Sezione di Taranto, Istituto Sperimentale Talassografico "A. Cerruti", Taranto, Italy. This project at this stage applies to marine biology, marine microbiology, oceanography and marine chemistry applied to marine pollution monitoring documentation, which can be found at the IAMC-CNR, in Taranto, Italy.

MECME DL provides bibliographic information, full-text documents, including many kinds of documentation: technical reports, proceedings, pre-prints, theses, published papers (following the actual copyright legislation), analytical data, maps, bibliographies, etc. . .

MECME DL is a "personalised" edition of the system ETRDL (ERCIM Technical Reference Digital Library) and is hosted by the Server at the ISTI-CNR, in Pisa. **MECME has been built following the example and prototype pattern of the Vallisneri Library. Its main frame as a self publishing digital library has been based upon LVDL - LAGUNA DI VENEZIA DIGITAL LIBRARY, which covers up similar fields of interest.**

The system is based upon RFC 1807 metadata (Dublin Core mapping) and Dienst Protocol.

Actually ISTI-CNR is developing a new Digital Library Service System "Open Dlib" and is going to substitute this system.

MECME DL is conspicuous for its subject content, as it has three different semantic descriptors (Free key-words, ASFA thesaurus key-words, LC classification scheme), which go deeply into specific terminology. This DL allows information research and retrieval, helping different kinds of users, describing documents specialised in marine biology, oceanography and environmental pollution monitoring.

URL: <http://istiserv.isti.cnr.it>

## DESCRIPTION OF SEARCH TOOLS AND OPTIONS

### Start search and Browse

When You click in the options “Start Search and Browse” You get a friendly user interface in both languages (English, Italian):

- A) Search Document (for the user)
- B) Browse Collection (for the user)
- C) Submit document (for the operator, in order to put documents into the collection)

### SEARCH

There are three kinds of search: Simple Search, Fielded Search, Direct Search.

*Simple Search:* You must enter one or more term(s) in the “term(s)” field, to find all documents in all collections which contain the term(s) in any field. You can then start the search.

*Fielded Search:* You must enter term(s) in one of the following fields at least: Title, Author(s), Abstract (in Italian or other languages, i.e. Spanish, French, German, English), Subject(s): You can enter Free Keywords or codes extracted from LC Classification scheme or ASFA Thesaurus. You can use the logical operators: AND, OR among fields or into each field, if You want. You could also refine search results selecting the following:

Type of document (i.e. technical reports, proceedings, etc...); Year; Language (i.e. Spanish, French, German, English), plus selecting from the collection(s) list one or more collections, or searching into all collections. You can then start the search.

*Direct Search:* You must enter the document ID to be found. You can then start the search.

### BROWSE

You can browse the collection by: Authors, Years, Free Keywords, LC, ASFA

*Authors:* You may select all authors or a range of Authors; for example (A-C; D-F...) - (A-B-C-D-E. . . )

*Years:* You may select all years, a range of years, or a particular year.

For example: Range 1991 to 2001; 2001 to 2001;

Individual years: 1991. 1992 ... 2004.

#### *Key-words, LC codes, ASFA descriptors*

You can browse the collection by Free Keywords, LC (Library of Congress) classification scheme codes and ASFA (Aquatic Science and Fisheries Abstracts) Thesaurus descriptors.

Withing each of these fields You have the option of Simple Search or Search Fields.

Search Fields- includes: Simple search, Fielded search and Direct search as described before.

Simple search is made without forms.

#### Key-words

You may want to select all keywords or a range of keywords arranged as follows:

A-C; D-F; G-I, etc... or A-B-C-D-E-F.

Search results give You all the list with the articles under the keyword(s) selected.

Example:

A

ACQUACOLTURA

Accrescimento di Tapes.

ALGHE BENTONICHE

Indagine...

LC codes

You can browse the collection by LC codes and descriptors, selecting all LC codes or a range of LC codes, arranged as follows: A-C, D-F;G-I etc... or A-B-C-D... Reports will be listed by LC codes, after the search, as follows:

AQUACULTURE

Biologia di tapes decussatus... 2004-TR-90, 1991-05-04.

ASFA descriptors

Browsing the collection by ASFA descriptors arranged as follows: A-B-C-D...

Reports will be listed by ASFA descriptors, after the search, in this way:

B

BACTERIA

La componente microbica del biofilm... 2004-TR-29, 1996-04-25.

BENTHIC ALGAE

Indagine conoscitiva... 2004-TR-38, 1996-04-23

For all three: Keywords, LC codes and ASFA descriptors, if You click on each report title, You can get a detailed description of the document retrieved, abstracts included and a full-text version in pdf format, if available for such a document.

#### DESCRIPTION OF THE DOCUMENT RETRIEVED

When You click on the document line chosen You get a bibliographic description, which is made up of the following elements:

Title

Author(s)

Bib. code: (of the document)

Date: (of the document)

Keywords LC ASFA descriptors

Document Type: (i.e. technical reports, proceedings, pre-prints, theses...)

Language

Abstract (in Italian)

Other language abstract (in English)

If the full-text version of the document has not been given by the Author(s) You'll find the note: "No online versions of the document selected are available".

On the contrary, if there is one, You shall get the information on how to view the whole document, clicking on one of the formats available, with the bytes number indication.

A copyright information is given for each document, saying basically You are granted permission for the non-commercial reproduction, distribution, display and performance of the document, in any format for a limited time, (45 days from availability of the document).

#### DOCUMENT SUBMISSION FORM

Bibliographic data of each document are registered, showing up the following fields:

-Publisher

-Title

-Author(s)

-E-mail (of the Author-s)

-Italian abstract

-English abstract

-Date (of the document)

- Type (of document, i.e. technical reports, proceedings, pre-prints, theses...)
- Language
- Subject(s): Free keywords
- Subject(s): LC classification Outline (LC)
- Subject(s): ASFA

There are fields which come up after confirmation, following the filling up of the first phase in the document submission, for which some instructions are given:

To submit Your document to DIENST server via HTTP, You need to fill up any field. You may click for help, if You need it. All fields are mandatory, except for the telephone number.

- Bibliographic Record
- Title
- Author(s)
- Submission Contact/ e-mail
- Subjects:
  - Asfa thesaurus (ASFA)
  - LC classification Outline (LC)
  - Free Key-words
- Publisher (Click and choose Your collection)
- Abstract:
  - Italian
  - Other language (You have a choice of: English, Spanish, French, German)
- Notes
- URL reference (if any)
- Date: Year, Month, Day (of the document)
- Type (of document: i.e. technical reports, proceedings, preprints, theses...)

If You are submitting the document's abstract only, You need to tick a box and ignore the file(s) selection. If You are submitting full-text, You need to browse the system and select the file to save. Select the file name, its format (You have the choice of: pdf, txt, html, tiff, jpg, gif, doc). You can submit the form and get it in the definite shape first described.

## CONCLUSIONS

There is an actual debate among the Italian Scientific community members about the opportunity to make up a "National Science Digital Library", which would federate all Italian university and research libraries and would be containing all national scientific literature (4).

The actual research in the field of digital libraries allows the making up of an "Italian National Science Digital Library", through the development of a "software platform", which puts together all single digital libraries, based upon heterogeneous systems, providing them with advanced services (annotation, personalisation, cooperation, recommendation, etc.)

Such an opportunity has become reality in the US, where the "National Science Digital Library" is being developed (5).

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- 4- National Science Digital Library: <http://etrdl.isti.cnr.it/BD/2004/>
- 5- US National Science Digital Library: [www.nsdlib.org/](http://www.nsdlib.org/)