

ETRDL: a Digital Library Infrastructure for academic self-publishing

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ISTI - CNR - PISA



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ISTI - Institute of Information Science and Technologies of National Council of Research

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- ◆ coordinator of activities of D-Lib Center
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- ◆ manager of security polices of ISTI
- ◆ system administrator of Etrdl

ETRDL

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The aim of this presentation is:

✦ to present ETRDL (Ercim* Technical Reference Digital Library), i.e. a model of academic self archiving and /or self publishing

**European Research Consortium for Informatics and Mathematics*

ETRDRL history

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✦ was born on 1997 as a specialised sub-collection of

- ◆ NCSTRL - U.S. Networked Computer Science Technical Reference Library
- ◆ with extended functionality to meet the needs of a European Digital Library service

ETRDL history (cont.)

✦ on 1998 became one of the activities of the DELOS project (coordinator of the DL research activities in Europe)

✦ founded by

- ◆ Esprit Long Term Research Programme - LTR n.21057
- ◆ Ercim
- ◆ Participants Institutions

ETRDL Participants

The screenshot displays the ETRDL website interface. At the top, a navigation bar includes the ETRDL logo and links for home, events, project, search, and support. The main content area is titled "Search on Local Servers" and provides instructions to select a preferred local server. Seven participating institutions are listed, each with a logo and name: CNR (National Research Council Italy), GMD (National Research Center for Information Technology Germany), INRIA (National Institute for Research in Computer Science and Control France), FORTH (Foundation for Research and Technology - Hellas Greece), SICS (Institute of Computer Science Sweden), SZTAKI (Computer and Automation Research Institute Hungary), CRCIM (Czech Research Consortium for Informatics and Mathematics Czech Republic), and CWI (National Research Institute for Mathematics and Computer Science The Netherlands). The website footer contains copyright information for CNR/IEI (Itak) and Centromedia Com.

ercim technical reference digital library

home events project search support

Search on Local Servers

To search the ETRDL collection, select your preferred local server.

 CNR National Research Council Italy	 GMD National Research Center for Information Technology Germany	 INRIA National Institute for Research in Computer Science and Control France
 FORTH Foundation for Research and Technology - Hellas Greece	 SICS Institute of Computer Science Sweden	 SZTAKI Computer and Automation Research Institute Hungary
 CRCIM Czech Research Consortium for Informatics and Mathematics Czech Republic	 CWI National Research Institute for Mathematics and Computer Science The Netherlands	

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ETRDL

✱ is an operational DL service at ISTI

✱ is used as a test-bed during courses on the “Self-Publishing” organized and held at the D-Lib Center, so that students can create digital objects and practice working with an advanced operational DL

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ETRDL environment

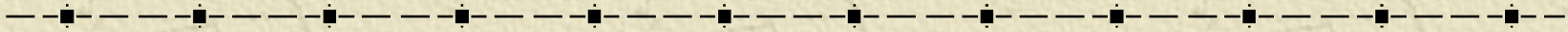
- ✧ The HW/SW platform consists of
 - ✧ ETRDL servers (operative DL)
 - ✧ 1 ETRDL server (demo environment)

- ✧ The SW platform is
 - ✧ operating system - Unix (or Linux)
 - ✧ http server - Apache
 - ✧ language -Perl
 - ✧ DL package - ETRDL
 - ✧

ETRDL

-
- ✦ is a scientific DL realized within ERCIM in collaboration with the Cornell University
 - ✦ provides functionality for self publishing
 - ◆ document submission, revision, administration, search and browse
 - ✦ is a system easy to be learned and easy to be used

ETRDL Digital Library



- ✧ is a distributed and multi-format DL accessible via WEB
- ✧ provides innovative functionality for academic publishing
- ✧ its services are managed locally by authors and academic library institutions

ETRDL features

- ✦ assists scientists to make their research results immediately available world-wide, and provides them with easy facilities to access documents
- ✦ contains many kinds of grey literature
- ✦ addresses different classes of users

ETRDL documents

✦ was born to contain the scientific production of the members of the ERCIM Institutions:

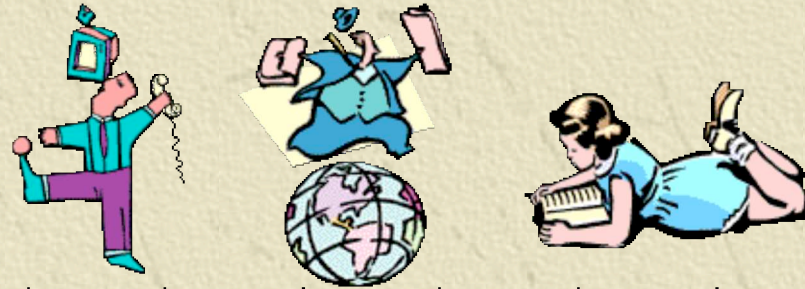
- ◆ Preprints
- ◆ Technical reports
- ◆ EC deliverables (not restricted)
- ◆ Proceedings of conferences and workshops
- ◆ Project reports
- ◆

ETRDL documents (cont.)

✧ accepts the following document formats

- ✧ PS
- ✧ PDF
- ✧ TEXT
- ✧ HTML
- ✧ GIF
- ✧ JPG
- ✧ ..

ETRDL users



✦ offers a complete DL service covering the needs of four classes of users:

Information producers (**Authors**)

Information administrators (**Reviewers**)

Information administrators (**Librarians/System Managers**)

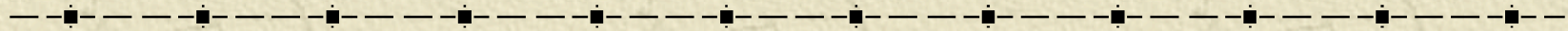
Information seekers (**Final Users**)

ETRDL self publishing service

— ■ — ■ — ■ — ■ — ■ — ■ — ■ — ■ — ■ — ■ — ■ — ■ —
✱ includes the following functionality for:

- ✱ simple and advanced search facilities
- ✱ on-line controlled submission and subject classification of documents
- ✱ revisioning of documents
- ✱ updating and deleting of documents

ETRDL self publishing service (cont.)

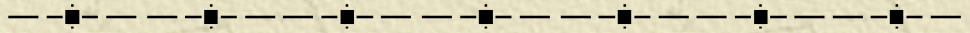


✦ guarantees a common set of services

✦ permits differentiation at local level

- ✦ each institution may customize the administration services to reflect local needs

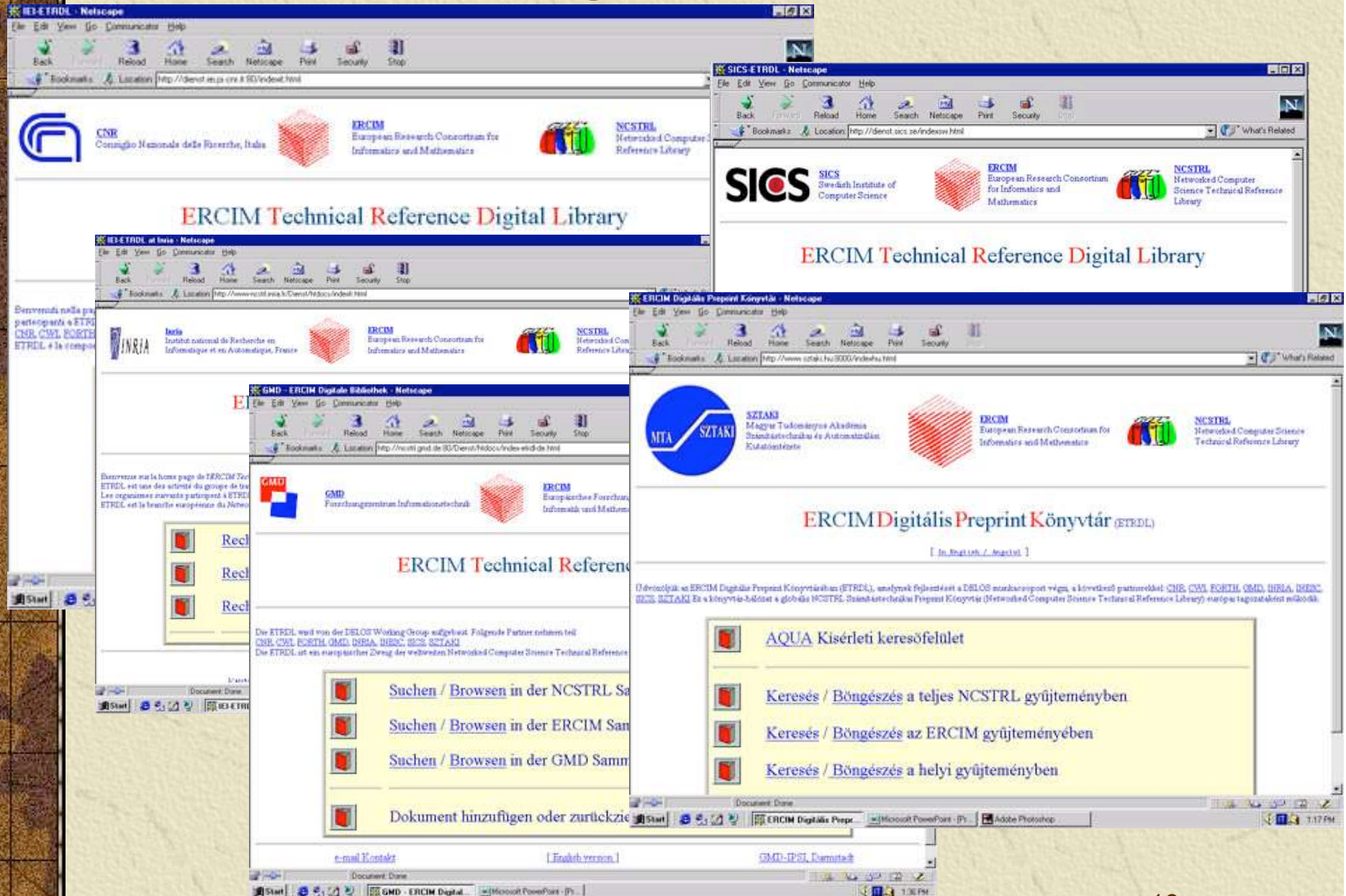
ETRDL WEB access



- ✦ provides access to multilingual interfaces in English and in the local languages to meet the requirements of the European research communities

<http://etrdl.isti.cnr.it>

Multilingual Interfaces



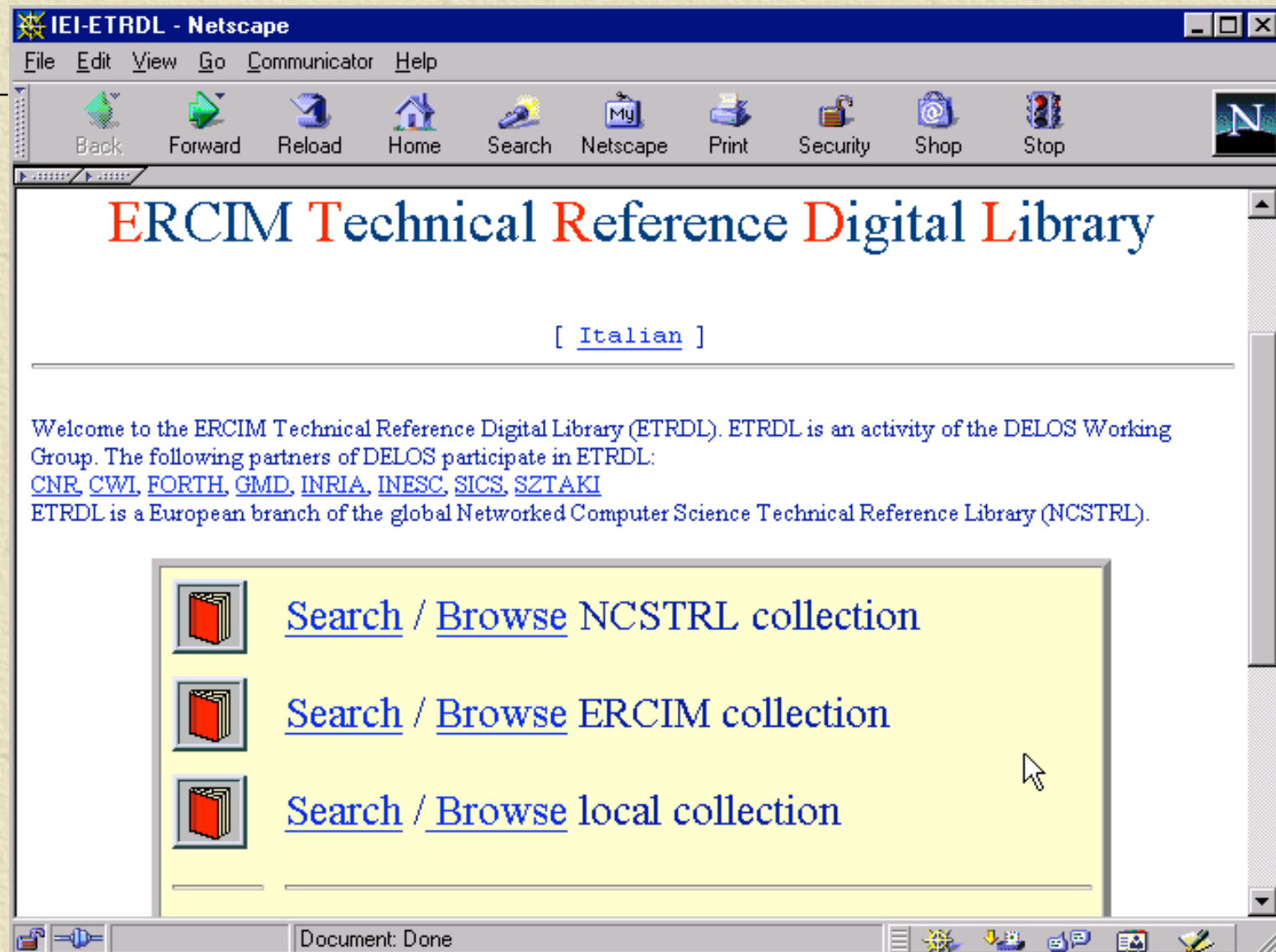
Common User Interface



✧ permits easy access through WEB and provides the users with two main options:

- ◆ Submit or withdraw a document from the local collection
- ◆ Search and browse any collection

Common User Interface



Document Submission Interface

-
- ✦ permits the compilation of the form filling in the fields the bibliographic descriptions and the abstracts
 - ✦ permits the downloading of the document into the server

(metadata “RFC 1807” can be mapped into Dublin Core elements)

Document submission interface

The screenshot shows a Netscape browser window titled "Submission Form - Netscape". The address bar displays the URL: `http://dienst.iei/AUIscripts/submit/new_upload.pl?langver=`. The page content includes the header "ERCIM Technical Reference Digital Library" and a large red title "Document Submission Form". Below the title, instructions state: "To submit your *document* to the *Dienst* server via HTTP, please fill in the following form. If you need help for any field, please click [here](#). All fields are mandatory, except for the telephone number." A section titled "Bibliographic record" contains three input fields: "Title:" with the text "Linear algebra problems with APL2", "Author(s):" with the text "Beltrame, Renzo L.", and "e-mail:" with the text "Renzo.Beltrame@unige.ch". The status bar at the bottom indicates "Document: Done".

Submission Form - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Stop

Bookmarks Location: `http://dienst.iei/AUIscripts/submit/new_upload.pl?langver=` What's Related

ERCIM Technical Reference Digital Library

Document Submission Form

To submit your *document* to the *Dienst* server via HTTP, please fill in the following form.
If you need help for any field, please click [here](#).
All fields are mandatory, except for the telephone number.

Bibliographic record

Title:	Linear algebra problems with APL2
Author(s):	Beltrame, Renzo L.
e-mail:	Renzo.Beltrame@unige.ch

Document: Done

Document submission interface (cont.)

The screenshot shows a Netscape browser window titled "Submission Form - Netscape". The address bar displays the URL "http://dienst.iei/AUIscripts/submit/new_upload.pl?langver=". The form is organized into four main sections:

- Submission contact:** Contains fields for "e-mail:" (filled with "Renzo.Beltrame@cnuce.cnr.it") and "Tel.:" (filled with "+39 050 593 288").
- Subject(s):** Features a "Free Keywords:" section with three input fields. The first field is empty, the second contains "Computing Classification System (ACM)", and the third contains "C.4 PERFORMANCE OF SYSTEMS: Measurement techniques". There are also two empty fields under "Mathematics Subject Classification (MSC)".
- Publisher:** A dropdown menu currently showing ">>> Click and choose your Collection <<<".
- English:** A large text area containing the text: "We present a performance comparison of three IBM systems, main-frame, SP1, and SP2. Some data are added, which refer to enhanced nodes of SP2, and to two different nodes type and configuration. We choose for the comparison three linear".

The status bar at the bottom indicates "Document: Done".

Document submission interface (cont.)

Netscape: Submission Form

Location: http://dienst.iei.pi.cnr.it:80/AUscripts/submit/new_upload.pl?langver=

ERCIM Technical Reference Digital Library

Document Submission Form

To submit your *document* to the *Dienst* server via HTTP, please fill in the following form.
If you need help for any field, please click [here](#).
All fields are mandatory, except for the telephone number.

Bibliographic record

Title:	A Comparison-Based Diagnosis Algorithm Tolerating Comparator
Author(s):	Sallay, Balazs and Maestrini, Piero and Santi, Paolo
Submission contact	e-mail: maestrini@iei.pi.cnr.it Tel.:
Subject(s):	Free Keywords: Algorithms, Design, Reliability Computing Classification System (ACM) B.7.m Miscellaneous B.8.1 Reliability, Testing, and Mathematics Subject Classification (MS)
Publisher:	CNR - Istituto di Elaborazione della In
Abstract:	English: A promising application of syst testing of VLSI chips during th comparison-based diagnosis is e to implement on the wafer than existing comparison models esse invalidation due to the physical

Other language: >>> Click and choose <<<

Netscape: 1998 ACM Computing Classification System: B.8

The ACM Computing Classification System (1998)

B.8 PERFORMANCE AND RELIABILITY **NEW!**

- B.8.0 General **NEW!**
- B.8.1 Reliability, Testing, and Fault-Tolerance **NEW!**
- B.8.2 Performance Analysis and Design Aids **NEW!**
- B.8.m Miscellaneous **NEW!**

Return to:

- [B. Hardware](#)
- [The ACM Computing Classification System \(1998\)](#)
- [Overview of 1998 ACM Computing Classification System](#)

ETRDL Administration Interface

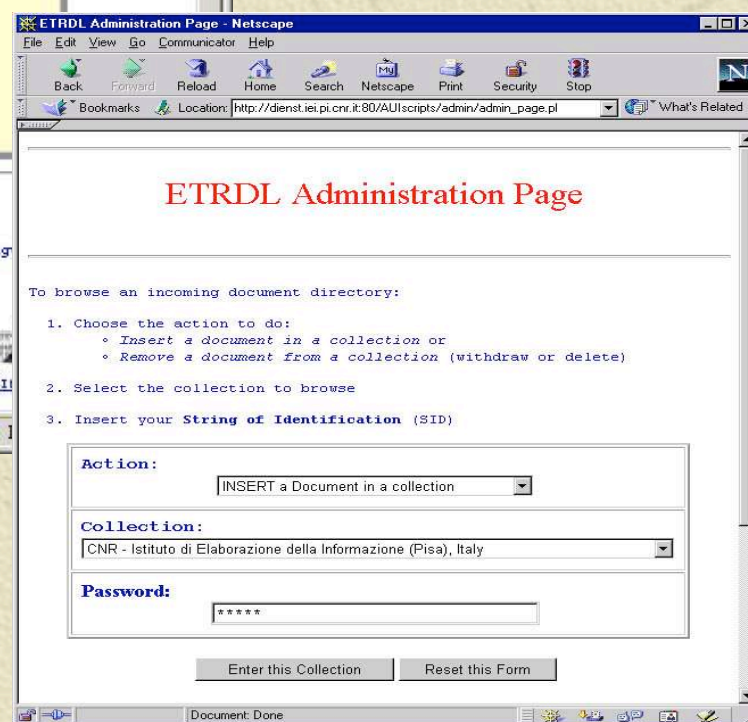
- ✧ permits the reviewing

- ◆ document approval or rejection

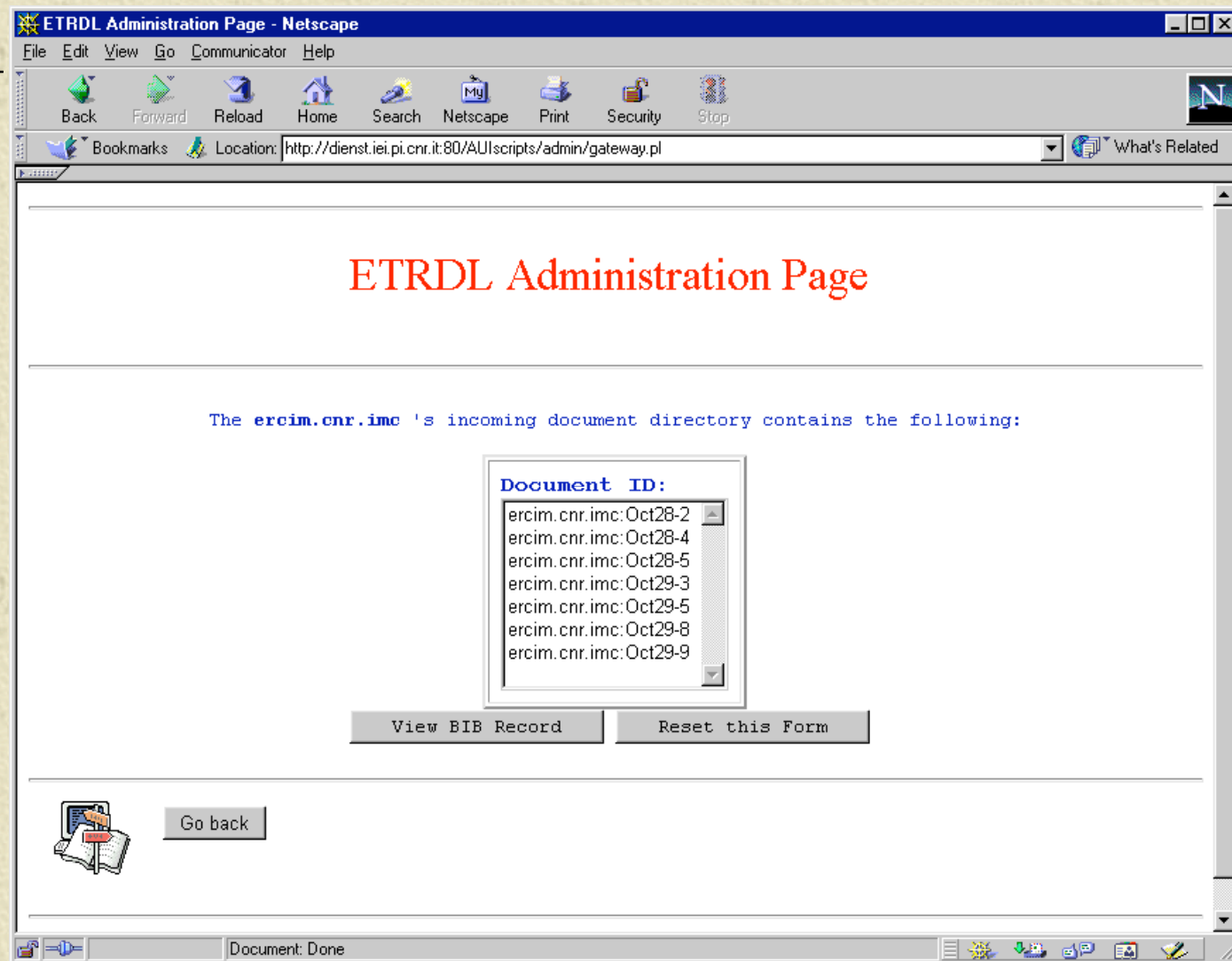
- ✧ permits the document administration

- ◆ formal check of metadata, archiving into the repository or removal

Reviewing and Administration Interfaces



List of documents submitted



Metadata and documents

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address <http://dienst.iei.pi.cnr.it/AUIscripts/admin/gateway.pl> Go Links

ETRDL Administration Page

The bibliographic record for the document ercim.cnr.iei:Feb8-1 is the following:

Title	<i>Degradation identification and model parameter estimation in discontinuity-adaptive visual reconstruction</i>
Author(s)	Tonazzini, A. Bedini, L.
Authority	ercim.cnr.iei
Author's e-mail	tonazzini@iei.pi.cnr.it
Author's tel.	+39 050 3153136
Entry	February 8, 2002
Date	2001-9-30
Type	Technical Report
Language	English
Pages	1
Subject(s): Keywords	Unsupervised image restoration; Blind image restoration; Edge regularization; Markov Random Fields
Subject(s): ACM	I.4.4 [Image Processing]: Restoration; I.4.6 [Image Processing]: Edge and feature detection; G.1.3 [Numerical Linear Algebra]: Solving very large systems (direct and iterative methods); G.3 [Probability and Statistics]: Probabilistic algorithms (including Monte Carlo); I.2.6 [Artificial Intelligence]: Learning: Connectionism and neural nets; Par

Done

ETRDL Approval Section - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address <http://albatros.iei.pi.cnr.it/AUIscripts/localadmin/aminap.pl> Go Links

English Abstract

The report introduces queuing network models for the performance analysis of SPMD applications executed on general-purpose parallel architectures such as MIMD and clusters of workstations. The models are based on the pattern of computation, communication and I/O operations of typical parallel applications. Analysis of the models leads to the definition of speedup surfaces which capture the relative influence of processors and I/O parallelism and show the effects of different hardware and software components on the performance. Since the parameters of the models correspond to measurable program and hardware characteristics, the models can be used to predict the performance of parallel applications in early stages of software development.

File/s	Filename	Format
	Paper.ps	PS

Approval

Passed: no

Approve Document View the Document Reject the Document

Done Internet

Document rejection

ETRDL Approval Section - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print W


Address <http://dienst.iei.pi.cnr.it/AUIscripts/localadmin/amminap.pl> Go Links »

ETRDL Approval Section

Document Reject: ercim.cnr.iei:Feb8-1

Title:	Degradation identification and model parameter estimation in
Entry Date:	February 8, 2002
Reason:	<div></div>
E-mail:	tonazzini@iei.pi.cnr.it
Choose an action:	<div>Send & Delete</div> <div>Reset this Form</div>

 or

 [ETRDL Report Approve Section](#)

Done Internet

ETRDL Search and Browse Interface

—■—■—■—■—■—■—■—■—■—■—■—■—
✦ permits the access to ETRDL via WEB for:

- ✦ Browsing metadata of a specific repository
- ✦ Searching one or more selected collections
- ✦ Viewing metadata and abstracts
- ✦ Accessing, printing or downloading documents

Netscape: ERCIM Search

Back Forward Reload Home Search Netscape Images Print Security Stop

Location: <http://dienst.iei.pi.cnr.it:80/Dienst/UI/2.0/Search?tiposearch=ercim&langver=> What's Related

Fielded Search

Enter term(s) in at least one of the fields below. If you need help for any field, please click [here](#).

Title:	
Author(s):	
Abstract:	English: Other language: All
Subject(s):	Enter Free Keywords or Codes extracted from ACM Computing Classification System or AMS Mathematics Subject Classification fault tolerance

Logical operator between fields: ☐ AND ☒ OR

You can refine the search results with one or more of the selectors below:

Type: All Year: Language: All

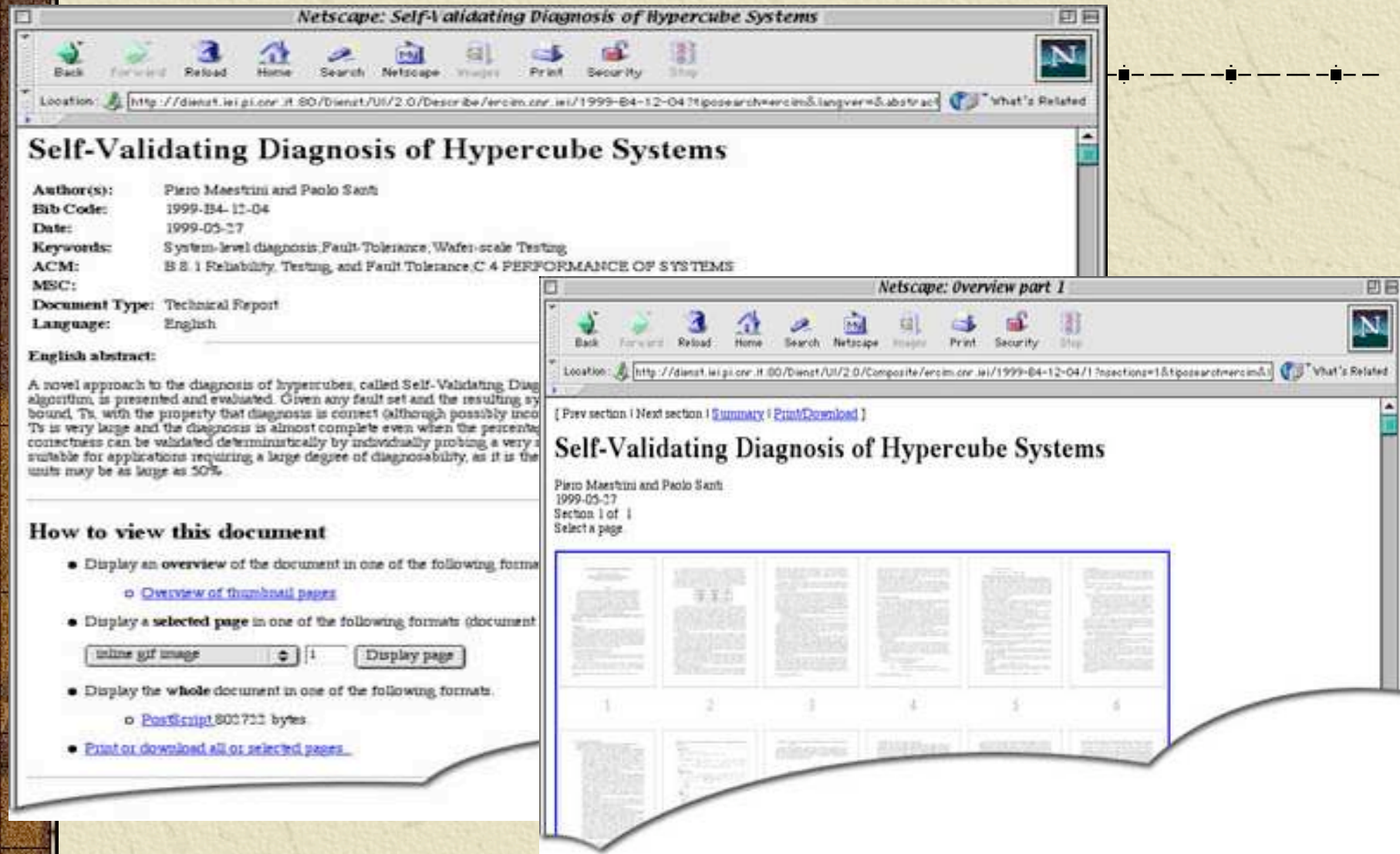
Select one or more collections from the following list:

CNR - Italian National Research Council	▲
CWI - Centrum voor Wiskunde en Informatica	
Foundation for Research and Technology - Hellas, Institute of Computer Science	
GMD - German National Research Center for Information Technology	
Inria, Institut National de Recherche en Informatique et en Automatique	
SICS - Swedish Institute of Computer Science	▼

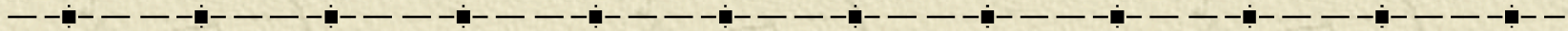
or search all collections ☒

Start search Clear fields

Search result

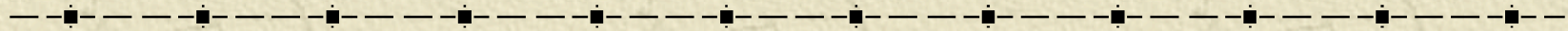


ETRDL



<http://etrdl.isti.cnr.it>

Architecture

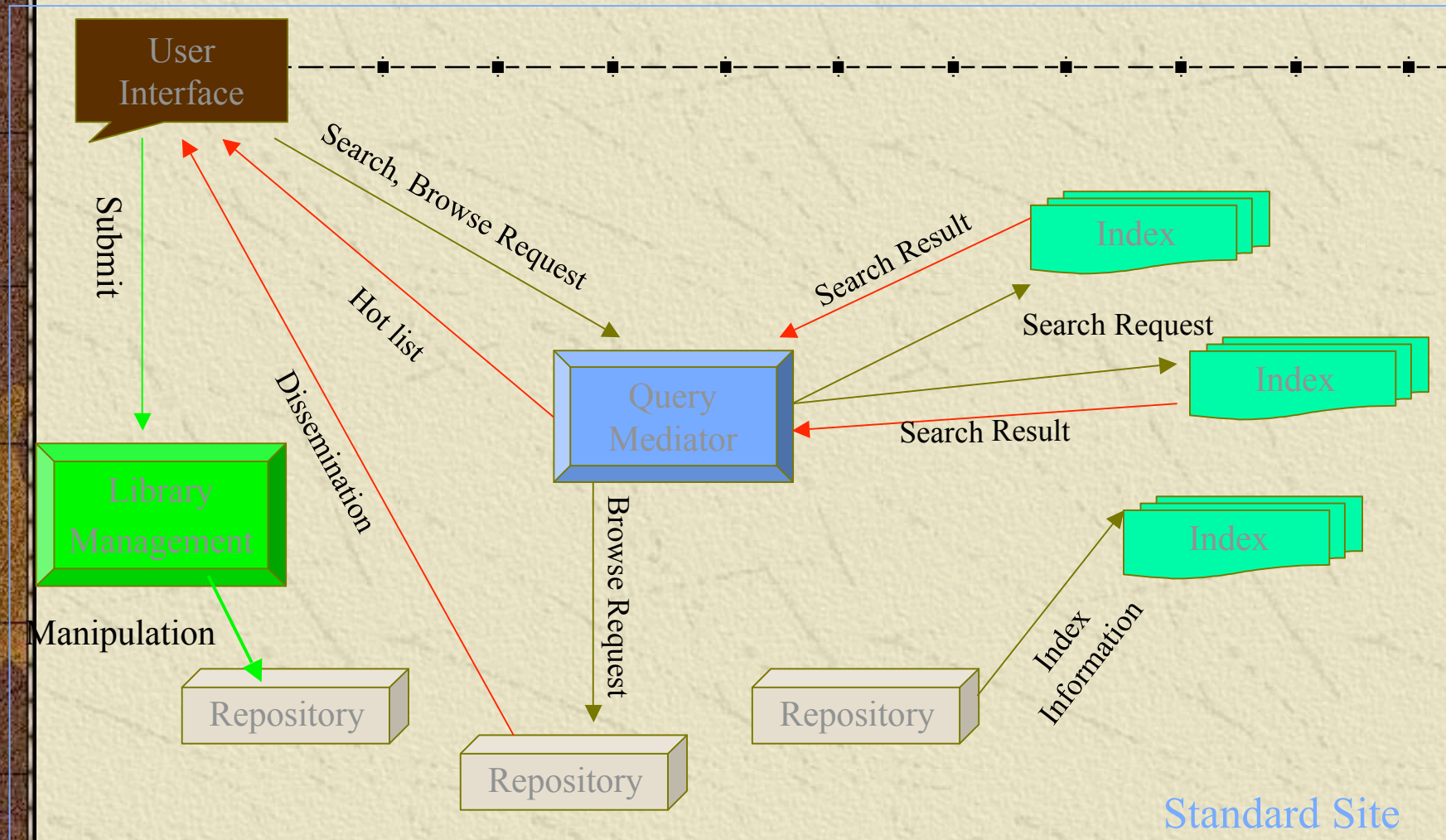


- ✦ Functionality are organized into a set of specific **services** accessible through a protocol which defines the methods for requesting and obtaining a service.
- ✦ A service is realized by a **server** module. The servers communicate with each other and can be replicated and distributed.
- ✦ Many digital libraries can be created with this **infrastructure** through the aggregation of a set of servers.

Services

- ✦ **Repository Service:** provides the mechanisms for storage of and access to digital objects
- ✦ **Index Service:** provides mechanisms for the discovery of digital objects
- ✦ **Meta Service:** provides mechanisms to localize all services
- ✦ **User Interface Service:** provides a human front-end to the other services

Servers



Infrastructure

