



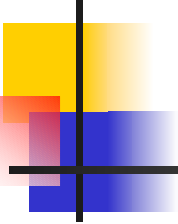
Bibliothekssysteme / Verbundsysteme / Netze

Teil 4: Integration und Schnittstellen

*Kaderkurs für Diplombibliothekarinnen und
Diplombibliothekare*

2002-05-02

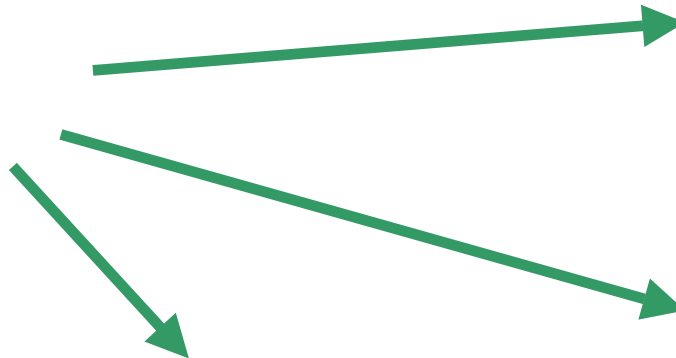
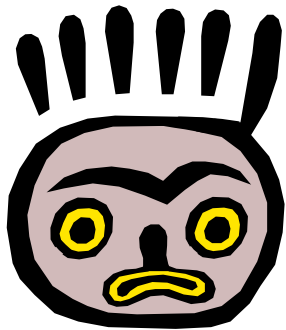
TRI▲LOG



Programm 2002-05-02

- 1105 – 1125 Identifikation
Integration
- 1125 – 1140 Schnittstellen
- 1200 – 1230 Z39.50
- 1230 - 1240 XML

Ressourcenverfügbarkeit





Verfügbare Quellen

Elektronischen Ressourcen:

- Datenbanken verschiedener Provider
- Diverse OPACS
- Dokumentbestellungen im Verbund / kommerziellen Lieferanten
- Preprint-Server
- Fachportale
- E-TOC's
- Usw.



Nutzung von Ressourcen

- Materielle Dokumente (Bücher, Zeitschriften, Artikel, usw.)
- Elektronische Dokumente (Artikeln, Webpages, Online-Datenbanken)



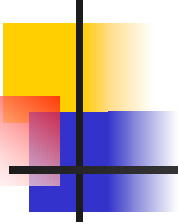
Identifikationssysteme

- ISSN, ISBN
- PII (Publisher Item Identifier)
- SICI (Serial Item and Contribution Identifier)
- URI (Unified Resource Identifier), URN
- DOI (Document Object Identifier)
 - Trennung von Linkdiensten und Beschreibung.

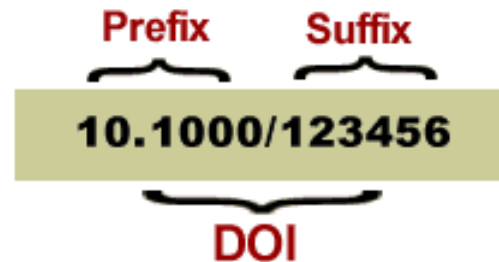


Prinzipien für die Dokumentenidentifikation

- Lebenslänglich und eindeutig
- Unabhängig von Nutzung (Präsentation, Art des Trägers, usw.)
- Erweiterungsfähig, um unterschiedliche Ausprägungen zu kennzeichnen (Träger, Format, Teile, Auszügen ...)
- Einfache Generierung und Benutzung
- Verlag kann sie selbst bestimmen
- Kann für viele publizierte Items genutzt werden (u.a. Hierarchie



DOI: Beispiel



10.1074/jbc.M004545200
10.Verlag/interner Bezeichner



DOI: Abdecken der Vielfalt

Use Case

Example

Links

Alternate Locations

Co-Hosting

[Article](#)

Mirror Sites (DLib)

[Article](#)

Alternate
Manifestations

Formats
(HTML/PDF,...)

[Article](#) (with format links)

[Article](#) (with format info)

Significant "Others"

Article/Erratum

[Article](#) and its [Erratum](#)

Article/Suppl.
Material

[Article](#) and its [Suppl.
Material](#)

Article/Journal

[Article](#) and its [Journal](#)

Versioning

Article Version
Chain

[Article](#), [Next Version](#) and
[Latest Version](#)

Components/Products

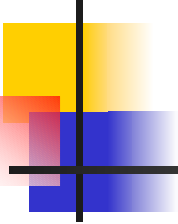
Multi-Homing

??



CrossRef

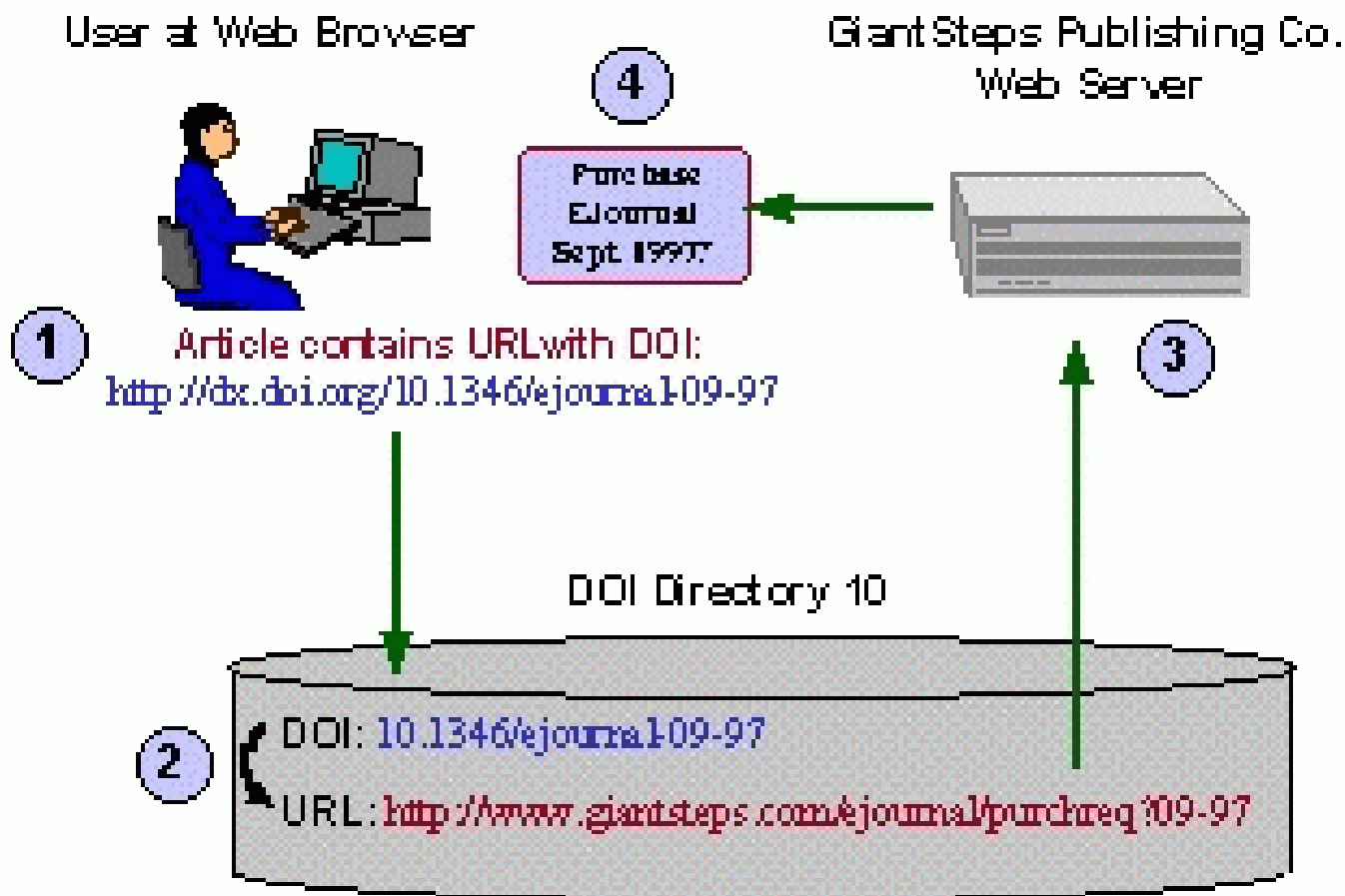
- CrossRef will für Bildung und Wissenschaft einen **„collaborative reference linking service“** geben
 - ➔ direkter Zugriff vom Zitat auf den zitierten Artikel
- PILA ist unabhängige Non-Profit-Organisation (Publishers International Linking Association, Inc.)
- **117 Verlage** mit **>6000 Zeitschriften** und **5 mio Artikel**.
- Bibliotheken usw. sind ebenfalls Partner.



CrossRef: Finanzierung

- Durch Verlage
 - Liefern Metadaten
 - Zahlen jährliche Mitgliedschaft
 - Gebühren von Abstracting- und Indexierungs-Services, die über DOI's Links zu Volltexten herstellen.

CrossRef: Schema





CrossRef: Entwicklungsperspektive

- Integration von weiteren Quellen
 - Enzyklopädien, Textbücher, Proceedings, usw.



OpenURL

- **= Metadatencontainer**
 - beschreibende Metadatenelemente + Identifiers (z.B. DOIs)
- wird vom Informationsanbieter in generiert



OpenURL: Beispiel

- [http://sfx1.exlibris.com/demo](http://sfx1.exlibris.com/demo?sid=ebsco:medline&aulast=Moll&auinit=JR&date=2000-11-03&stitle=J%20Biol%20Chem&volume=275&issue=44&spage=34826)?sid=ebsco:medline&aulast=Moll&auinit=JR&date=2000-11-03&stitle=J%20Biol%20Chem&volume=275&issue=44&spage=34826
- [http://sfxserv.rug.ac.be:8888/rug](http://sfxserv.rug.ac.be:8888/rug?id=doi:10.1074/jbc.M004545200)?id=doi:10.1074/jbc.M004545200

Legende:

red - BASE-URL of service component

blue - identifier of the resource where the user clicks the OpenURL

grey - metadata and identifiers



Anforderungen an die Integration

- über das Web verfügbar
- Provider-unabhängig (Herkunft, Ziel)
- Ortung der kostengünstigsten Informationsressource
- kontext-sensitiv (Berechtigung, Ort)
- Zweiweg (Quelle $\Leftrightarrow$ Ziel)
- Auswertungen



Search

Christine Stohn

End Session

Home

Locate Resources

My Profile

Back

Search

Results Summary

Results List

History

e-Shelf

Help

[Library Resource List](#)

[Agriculture](#)
[Anthropology](#)
[Area Studies](#)
[Arts and Architecture](#)
[Astronomy](#)
[Biology](#)
[Business Marketing](#)
[Chemistry](#)
[Computer Science](#)
[Earth Science](#)
[Economics](#)
[Education](#)
[Engineering](#)
[Environmental Science](#)
[History](#)
[Humanities](#)
[Language](#)
[Law](#)
[Libraries in America](#)
[Libraries in Europe](#)
[Libraries in Africa](#)
[Libraries in Asia](#)
[Libraries in Pacific](#)
[Literature](#)
[Mathematics](#)
[Medicine](#)
[Multidisciplinary](#)
[Music](#)
[News](#)
[Philosophy](#)

Field to search

Type word or phrase

☒ And ☐ Or ☐ Not

Field to search

Type word or phrase

- All Fields
- Subject</



Results List

Christine Stohn

Search

End Session

Home

Locate Resources

My Profile

Back

Results Summary

Results List

History

e-Shelf

Help

Save

Send to

Add to e-Shelf

Refine

Merge

Word from title=(pain) AND Word from title=(treatment) AND Any word=(spine)

Records 11- 20 of 47

Jump to:

Go

Previous

Next

PubMed

Academic Search Elite (EBSCO)

Integration in Aleph/Metalib

www.metalib.com/V/IFA72SBAQECG4DMRV98GVH3ADPQRGAFFG88GU1FRP4JF1UX2CE-25238/file/full-0?P - Microsoft Internet Explorer

Bearbeiten Ansicht Favoriten Extras ? Links >>

http://www.metalib.com/V/IFA72SBAQECG4DMRV98GVH3ADPQRGAFFG88GU1FRP4JF1UX2CE-25238/file/full-0?P01=0000013&P02=000001&P03=999

Full View

Christine Stohn

Search	End Session Results Summary	Home Results List	Locate Resources History	My Profile e-Shelf	Back Help
--------	--------------------------------	----------------------	-----------------------------	-----------------------	--------------

Word from title=(correction) AND Any word=(marquardt)

Word 1 of 2

ose format: Standard Original Converted

ADD TO e-SHELF SAVE SEND SFX

source

- PubMed
- Correction of leukocyte adhesion deficiency type II with oral fucose.
- Marquardt T
- Luhn K
- Srikrishna G
- Freeze HH
- Harms E
- Vestweber D

tion

R

Blood 1999 Dec 15;94(12):3976-85.
1999 Dec 15

We describe a simple, noninvasive, and effective therapy for leukocyte adhesion deficiency type II (LAD II), a rare inherited disorder of fucose metabolism. This disorder leads to an immunodeficiency caused by the absence of carbohydrate-based selectin ligands on the surface of neutrophils as well as to severe psychomotor and mental retardation. The fucosylation defect in LAD II fibroblasts can be corrected by addition of L-fucose to the culture medium. This prompted us to initiate dietary fucose therapy on a patient with LAD II. Oral supplementation of fucose in this patient induced the expression of fucosylated selectin ligands on neutrophils and core fucosylation of serum glycoproteins. During 9 months of treatment, infections and fever disappeared, elevated neutrophil counts returned to normal, and psychomotor capabilities improved.

ject

- Administration, Oral
- Fucose/*administration & dosage/therapeutic use
- Human

Posteingang - Microsoft D... Microsoft Word - Dokume... http://www.metalib... SFX by Ex Libris (USA) Inc... Microsoft Office Shortcut...

SFX by Ex Libris (USA) Inc. - Microsoft Internet Explorer

SFX Services for this record

Title Correction of leukocyte adhesion deficiency type II with oral fucose.
Source [0006-4971]
yr: 1999 vol: 94 iss: 12 pg: 3976

Full text available from Highwire
year: 1999 volume: 94 issue: 12 start page: 3976

Holdings in your Local Catalog?
Ex Libris ALEPH catalog

Holdings in this Union Catalog?
Union Catalogue of British and Irish Libraries - COPAC

Request document via your preferred Document Delivery Service?
Your library's document delivery service

Abstract available in PubMed from NCBI
year: 1999 volume: 94 issue: 12 start page: 3976

Other articles by this author? -- using Web of Science
last name initials



SFX: Beispiel

- <http://sfx.aaa.edu/menu?genre=article&issn=1234-5678&volume=12&issue=3&spage=1&epage=8&date=1998&aulast=Smith&aufirst=Paul>
- <http://sfx.aaa.edu/menu?sid=ERL:BX&pid=987641>
- <http://sfx.aaa.edu/menu?id=doi:10.1000/6382-1>

S·F·X Admin

dbManager

Sources Targets Search Objects



Statistics

Help

About

Log Off

List of Targets

Add New Target

Deselect

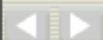
Activate All

Deactivate All

Delete

Show All

Show Active



Available: 108 targets

Database: global_01

Filter Target List:

Go

#	Target	Modified	Active	Action
☐ 1	ACADEMIC_PRESS_IDEAL	2001/03/30		
☐ 2	AMERICAN_CHEMICAL_SOCIETY	2001/03/30		
☐ 3	AMERICAN_MAT			

Service

Forum



LINK DOI Search

help

(e.g. 10.1007/s003399900316)

start search

clear form

Digital Object Identifiers DOI

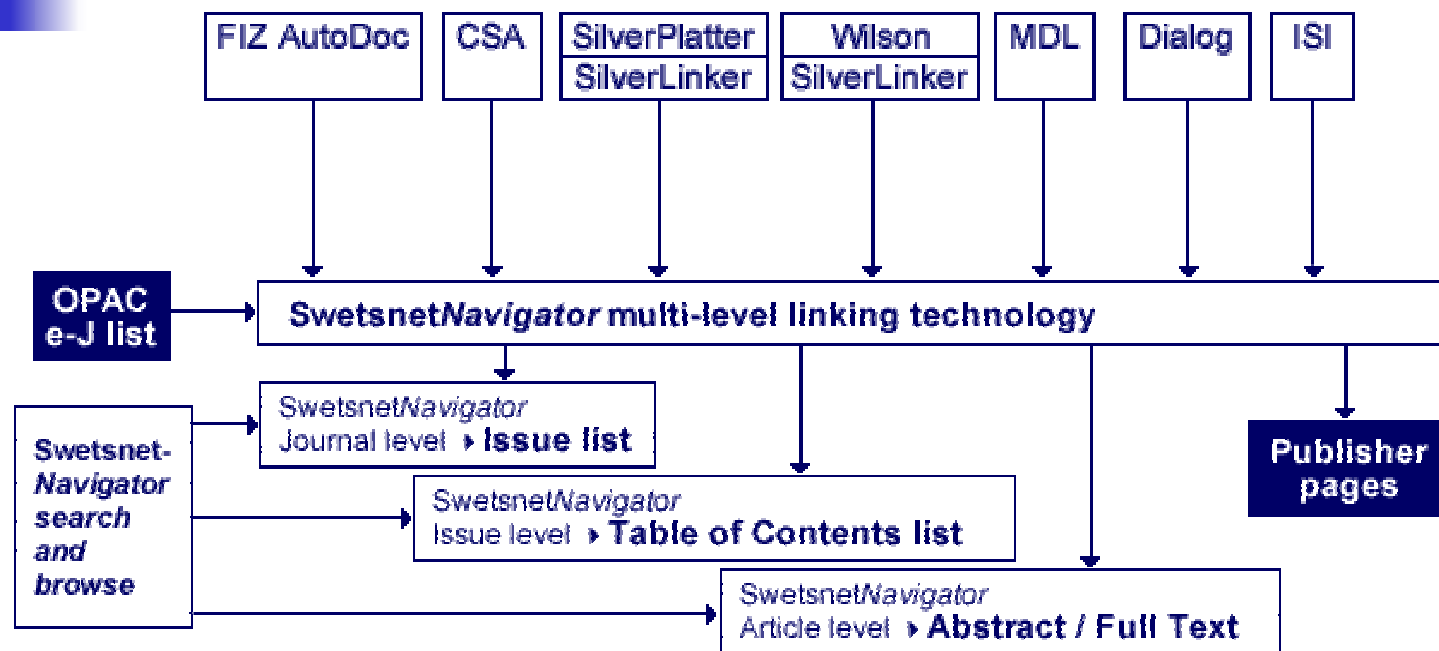
A DOI is a unique and persistent identification code for digital objects. It can be assigned to objects of any size: a complete journal, an article within the journal, or even a specific paragraph or image within an article.

[Detailed information.](#)

[LINK Helpdesk](#)

© Springer Berlin Heidelberg 1999

Swets



http://www.swetsnetnavigator.com/link/access_db?issn=<a>&vol=&iss=<c>&part=<d>&page=<e>&year=<f>

<a> = ISSN number (with or without hyphen)

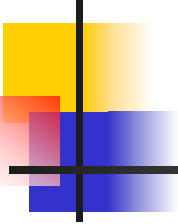
 = Volume number (optional)

<c> = Issue number (optional)

<d> = Part type – e.g. 'SUPPL' in case of supplement (optional)

<e> = Page number (optional)

<f> = Publication year (optional)



Schnittstellen

Von Bibliothekssystemen ...

- zu Benutzer
- zu Datenbanken
- zu Anwendungen

Systemelemente

Präsentations-
logik

Thick Client

WWW

Z39.50 client

Client *n*

PC
Server

WWW
Server

Z39.50
Server

API...
Server

3M
XXX
erver

Applikations
logik

Application Services (APIs)

Gateway

Datenlogik
& -Funktionen

I/O Engine

I/O interface

Datenspeicher

RDBMS

Datenobjekte

Objekt



Z39.50: Grundprinzip

Local user

The local user searches in the normal way e.g. Author = Tapscott.

Records are received and presented in the normal way.

Z-client

The Z-client translates the search into: "Z-Speak"

Records are received from the Z-Server and sent to the local user

Z-Server

The Z-Server receives the "Z-Speak" and translates into a search request for the remote database.

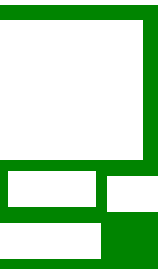
Retrieved records are presented to the Z-client

Remote database

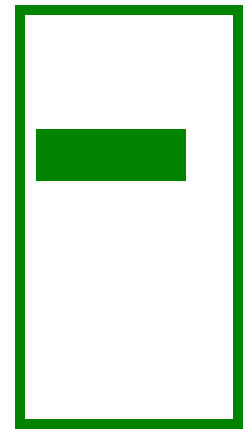
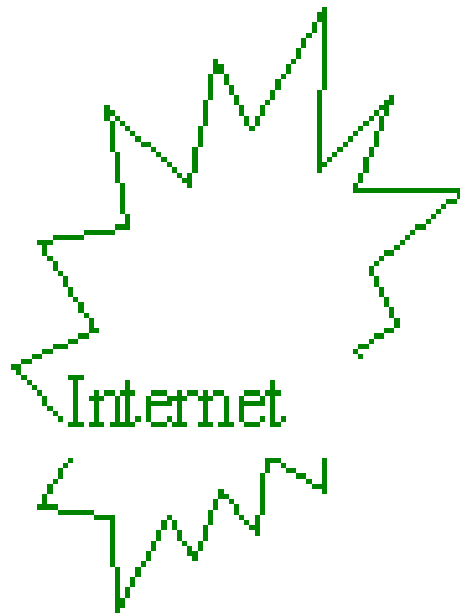
The remote database receives the request and returns the records to the Z-Server



Z39.50: Internet

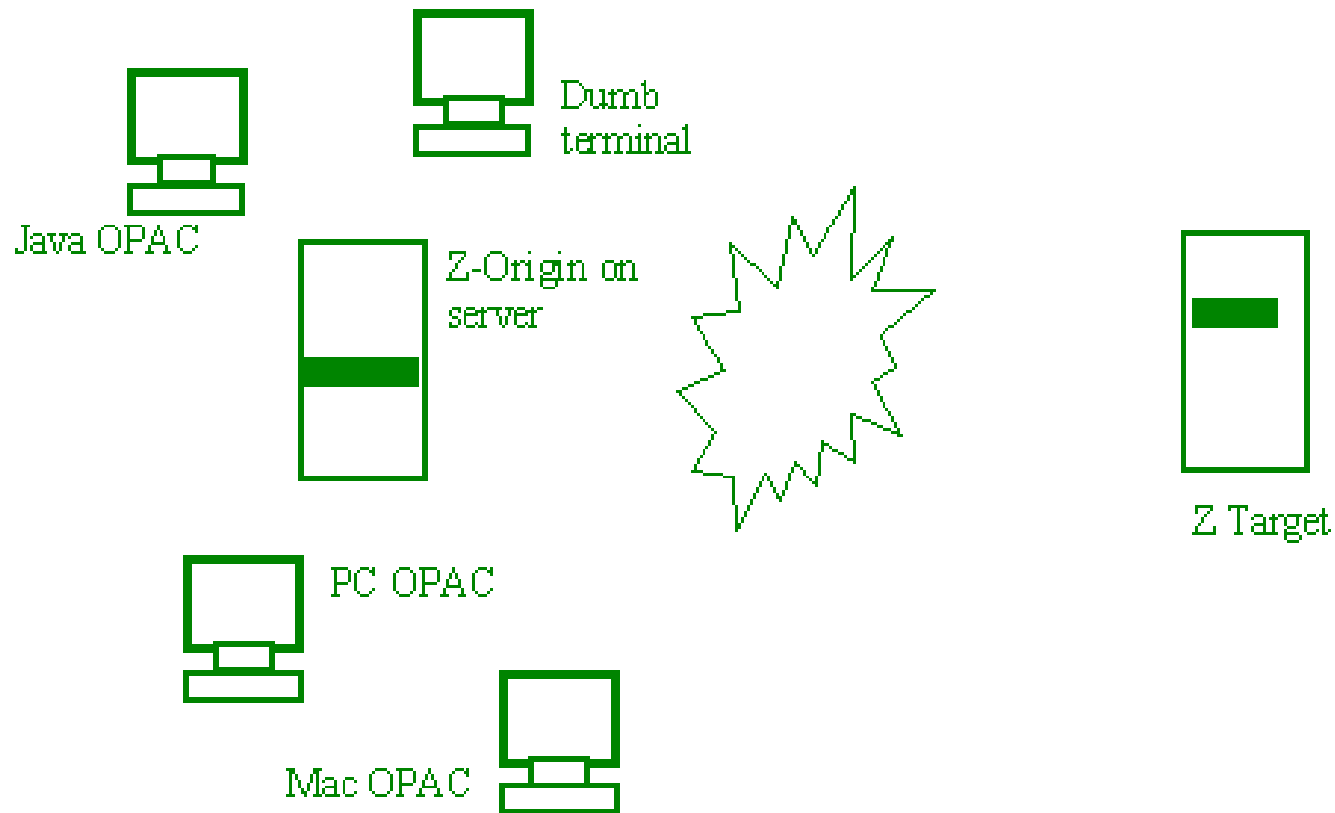


C based Z
origin



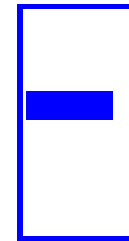
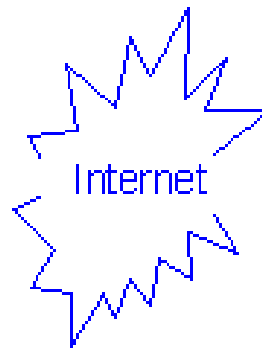
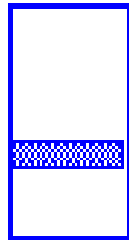
Z Target

Z39.50: Ablauf

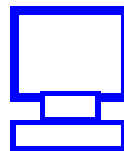


Z39.50: Ablauf Web

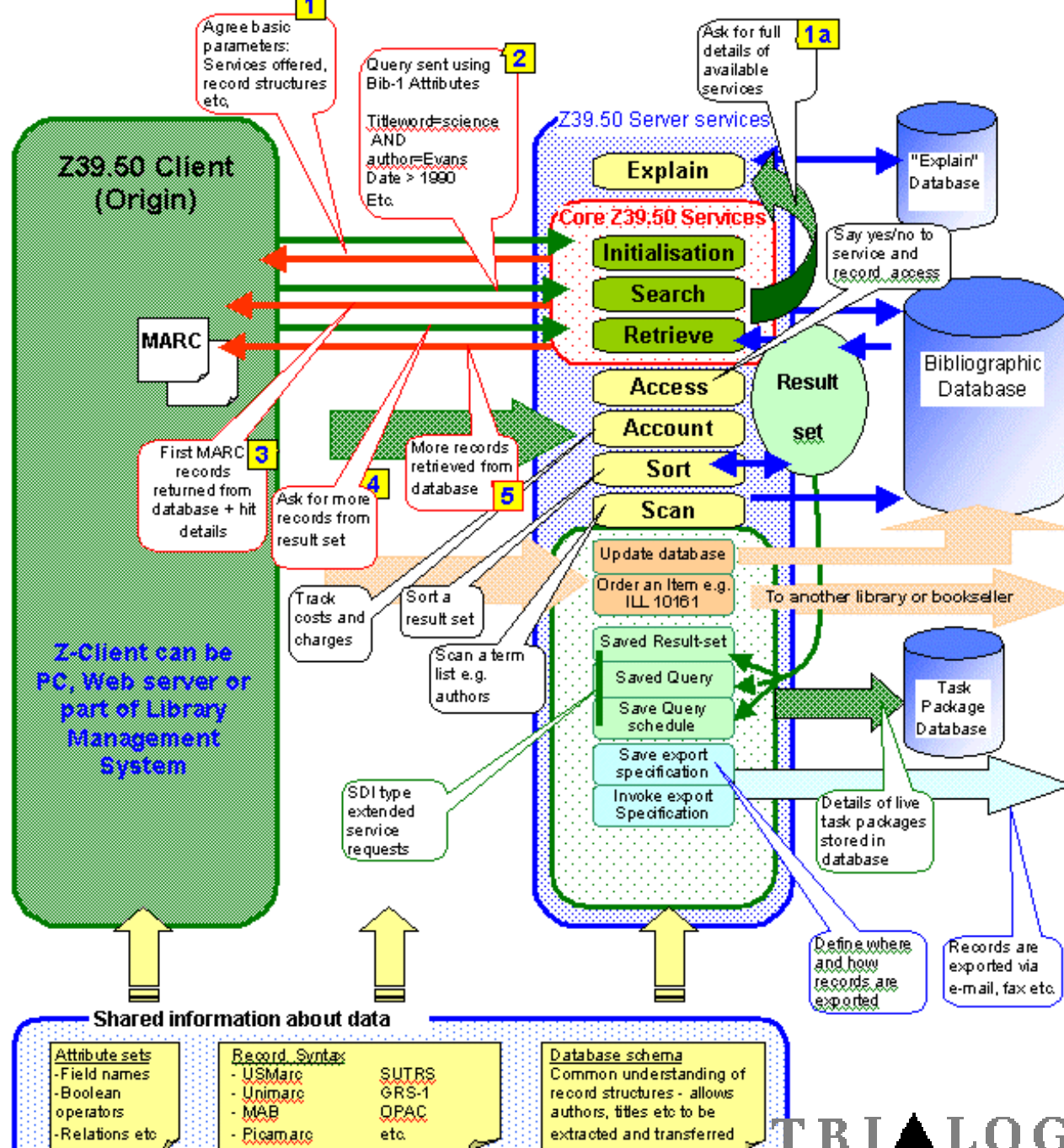
Remote
Z-client
with http
link

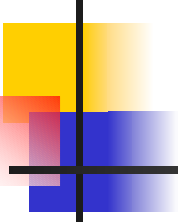


Standard
Web
browser



Z39.50: Schema





Z39.50: Attribut Sets

Name	Usage
bib-1	bibliographic information
exp-1	explain
stas	scientific and technical
collections-1	information navigation of digital collections
cimi-1	museum collection information
geo-1	geospatial metadata
ZBIG	Biological Information
xd-1	Cross-Domain



XML: Eigenschaften

- Verfahren zur Textauszeichnung
- Anwendungs-/Plattform-neutral
- Hierarchisch strukturiert
- Definierte Zeichenverwendung



XML: Beispiel

```
<Dokument>  
  <Titel>Die Zukunft der Bibliothek</Titel>  
  <Text>  
    <Kapitel>  
      <Titel>Einleitung</Titel>  
    </Kapitel>  
  </Text>  
</Dokument>
```



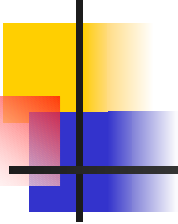
XML: Funktion

- Generalisiertes HTML, vereinfachtes SGML
- Breit akzeptiert (E-Business)
- Künftiges Format für Datenaustausch zwischen Applikationen
- Bereichsvereinbarungen
- Zusätze für Layout (XSQ), Suche (XSL), Links (XLL), ...



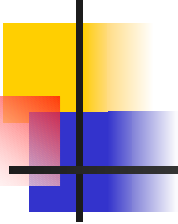
Metadaten: Dublin Core (DC)

Content	Intellectual Property	Instantiation
Title	Creator	Date
Subject	Publisher	Type
Description	Contributor	Format
Source	Rights	Identifier
Language		
Relation		
Coverage		



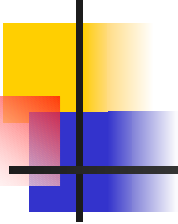
Präsentation & Integration

- Umfassende Applikation
- Portale, die unterschiedliche Applikationen verbindet



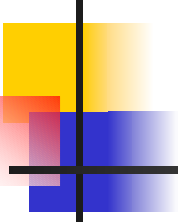
Portal: Definition

- Ein Portal ist eine Gateway zu internen und externen Quellen (Funktionen, Informationen, Daten)
- Portals ist eine Art von Schaufenster, das bedarfsgerecht Informationen, Quellen und Funktionen bereitstellt.



Portal: Funktionen

- Einheitliche Oberfläche
- Integration vieler Funktionen
- meist Personalisierung
- unterstützt diverse Protolle und Schnittstellen (Z39.50, HTTP, ...)
- Einheitlicher Zugriff (Suche, Funktionen)
- Zusammenführen von Informationen
 - z.B. Informationssuche: Merging, Dublettencheck



Portal: Beispiele

- Allgemeine: AOL, Yahoo, MSN, ...
- Bibliotheken: MetaLib, EnCompass



Sicherheit

Sichere Datenübertragung

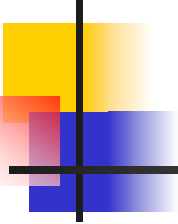
- Kryptographie (PGP, SSL)

Authentifizierung

- Elektronische Unterschrift
- Quellenauthentifikation (Wasserzeichen, Site Signature)

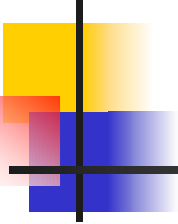
Copy Management

- Software-Schlüssel



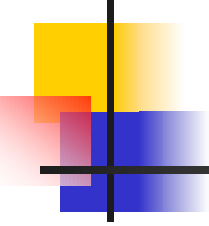
Datenschutz / Personenschutz

- Was alles so an Daten anfällt.
 - IP-Adresse
 - Betriebssystem, Browsertyp
 - Interesse
 - Persönliche Informationen
- Regelung für die Verwendung der anfallenden Daten?



Quellen

- <http://www.doi.org>
- <http://www.crossref.org>
- <http://www.elsevier.com/homepage/about/pii/>



***** ENDE ***
