Open Source Web Content Management Technologies for Libraries





Pre-Conference Tutorial February 25, 2009



Dr. M.G. Sreekumar UNESCO Coordinator, Greenstone Support, South Asia Librarian & Head, CDDL, IIM Kozhikode



- The Current Information Landscape
- Open Source Overview
- The OS Treasure Trove
- Categories of Open Source Software for Libraries
- Open Source Digital Library Systems
- Open Source Suite from PKP, SFU
- **KOHA**
- Greenstone
- DSpace
- PKP OAI Harvester
- Drupal Content Management System
- Discussion

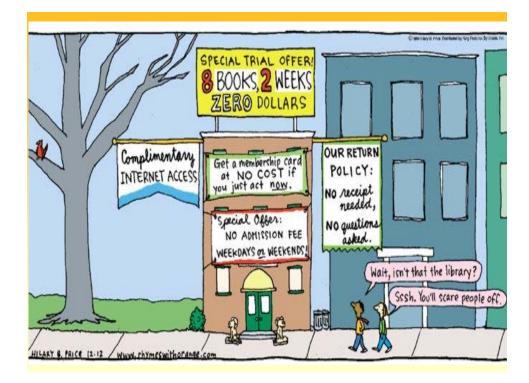
Foreword

- Demand for improved information and knowledge management solutions - universities, enterprises and institutions
- Digital Libraries gaining increasing social attention, academic and research interest
- Need for Integrated access to disparate information resources
- Key challenge how to create online information environments facilitating internal content publishing and single point access to internal/external information sources
- Latest DL technologies Vs Traditional libraries and knowledge management
- Options before us Proprietary Vs Open Standards / Open Source Software
- Fortunately we have a plethora of Open Source Solutions available for Library applications

The Current Environment

- Fascinating times in the history of libraries, information systems and electronic publishing
- Possibilities of building large-scale services
 - Collections are in digital formats and
 - Retrieved over networks
- Materials are stored on computers
- Network connects the computers to personal computers on the users' desks
- In a complete digital library, nothing need ever reach paper

Feel of the Hour



Need of the Hour

Future Libraries?

What is a library and what should it be in 2012, 2020 and beyond...

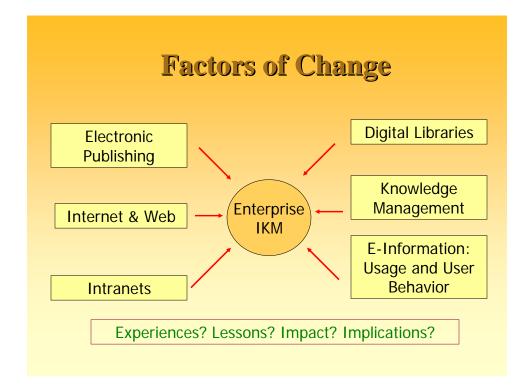
- What does the academic library of the future look like?
- Where do its walls begin and end?
- On campus?
- On our desktop?
- At home?
- Does it still have a function as a separate and distinct space?
- Or has it become the first step to an all-virtual future?
- Libraries have never been more interesting, difficult and challenging...

Challenges of the Day

- ✓ Relevance of Libraries in the Google Era
- ✓ Retention of Users, especially the New Gen
- ✓ Proliferation of Content
- Diverse Datastreams Content Categories, Publication Types
- ✓ Multimedia, Polymedia, Multiformats
- ✓ Collection Building Acquisition, Subscriptions, Licensing...
- ✓ Copyright, Intellectual Property, Fair Use...
- ✓ Technology Complexities, Infrastructure Issues
- ✓ Publishers' Stringent Policies / Monopolies
- ✓ Integration of legacy systems and the new genre

Information Strategy Tips

- ✓ Context = Scenarios, Paradigms
- ✓ Constant = Change
- ✓ Technology = Facilitate, and NO intimidate
- ✓ Information = The Big Picture Landscape
- ✓ Content = Aggregate, Integrate
- ✓ Service = Markup, Market
- ✓ Capital = Human, Tacit, Values, and Users



IM: Key Goals > Develop and manage a dynamic, unified information resource base (content repository) that gathers organizes and relevant internal and global information based resources, a taxonomy of on information needs of the enterprise, and make these available for learning and informed decision making.

IM : Key Goals...

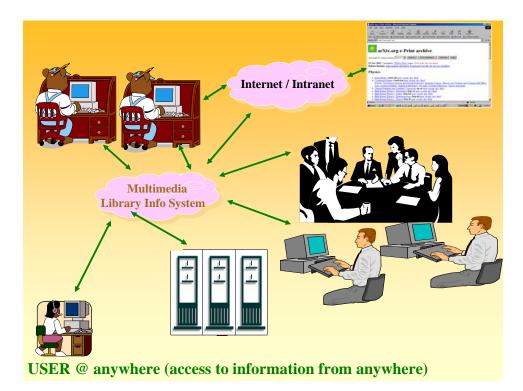
- Support <u>different manifestations of</u> <u>information sources</u> – implicit/explicit, print/digital, local/remote, free/commercial, etc.
- Support for delivering <u>personalized</u> <u>information services</u> to staff, both on demand and in anticipation.



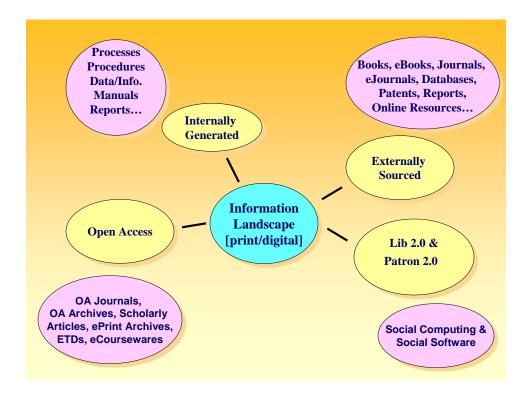
Top Tech Trends in IT / LIS

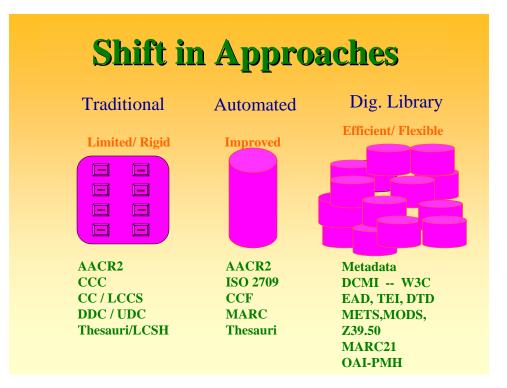
- Web 2.0 / Library 2.0
- Blogs / RSS Feeds / Wikis / Podcasts / Webcasts
- Open Source Software, Open Standards, Open URL
- User Tagging, Automated Tagging
- Web OPACs, and Interface Design
- Seamless Integration / Aggregation
- OA -> OAP + OAA
- Open Resource Discovery Tools Google Scholar
- E-Books, E-Journals, E-Resources
- Harvesting, Federation, Metasearching
- Digital Rights Management

L 1.0		L 2.0	
Closed stacks	>	Open stacks	
Collection development	>	Library suggestion box	
Preorganized ILS	>	User tagging	
Walk-in services	>	Globally available services	
"Read-only" catalog	>	Amazon-style comments	
Print newsletter mailed out	>	Team-built blog	
Easy = dumb users	>	Easy = smart systems	
Limited service options	>	Broad range of options	
Information as commodity	>	Information as conversation	
Monolithic applications	>	Flexible, adaptive modules	
Mission focus is output	>	Mission focus is outcome	
Focus on bringing 'em in	>	Focus on finding the user	
ILS is core operation	>	User services are core	



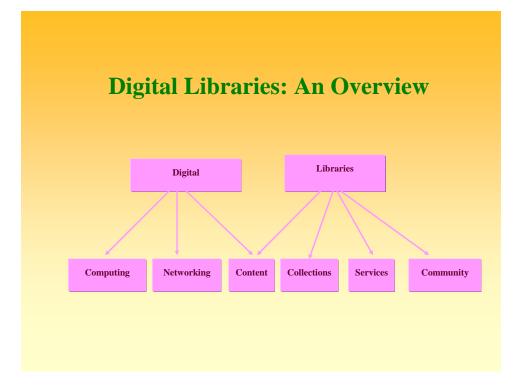
Penetration of E-Content in Libraries							
PUBLICATION TYPES	DOCUMENT FORMATS						
 E-Books, E-Journals Aggregated Scholarly E-Journal Databases Databases, CBT/ WBT Portals, Vortals Value added services Preprints, Eprints, E-Documents 	 ASCII, RTF, HTML, SGML, Postscript, PDF, Proprietary, Native Application Formats Images, Graphics Audio Video XHTML, ASP, PHP, XML 						





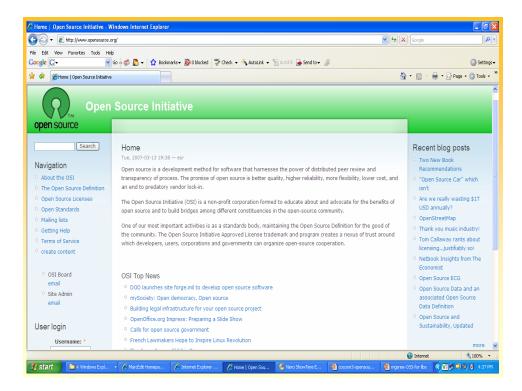
What Distinguishes a DL?

- Site Neutrality (3 in 1 Access-Anytime,
- Anywhere by Anyone Access)
- ➢ Open Access
- > Greater variety and granularity of information
- Sharing of information 'Sharium'
- ➢ Up-to-date ness
- ➤ Always available (365*7*24)
- New forms of rendering (New Genre)



What is open source software?

- In the phrase open source, source refers to source code, the human-readable computer code which is the origin, or source, of the computer application.
- *Open* refers to the terms of access to that computer source code.
- So open source software is software for which the source code is freely available.

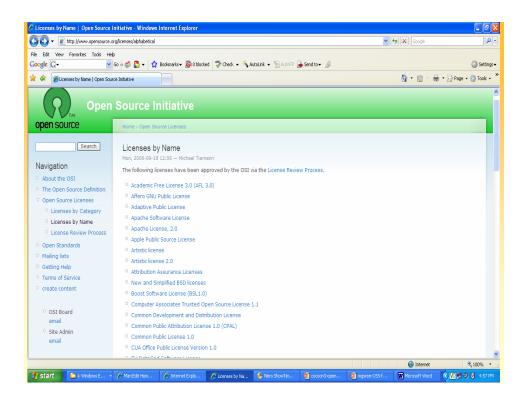


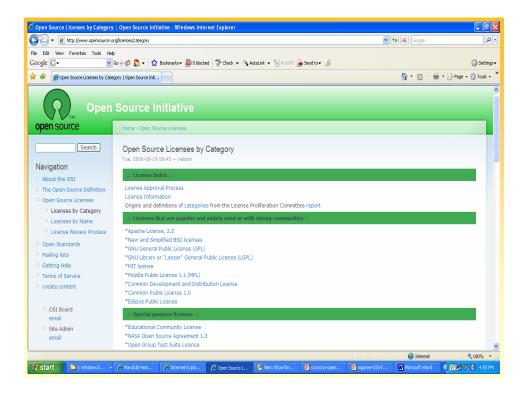
~	n Source Initiative - Windows Internet Explorer	- 2 2							
Coope District/imminiopersource.org/docs/osd									
ile Edit View Favorites Tools Hel		_							
Google C-	Go 🖗 🐉 🗧 🕆 🏠 Boolmarks 🛛 🧟 O blocked 🖤 Check 👻 🐴 Autoclink 👻 🔚 Autoclin 😓 Send to 🕶 🥖	Settings +							
🖌 🕸 🏀 The Open Source Definition C	Open Source Initiative 🔤 🔪 🖄 👻 👼 🖓 page 🗸	💮 Tools 👻							
Search	The Open Source Definition	2							
	Fri, 2006-07-07 15:49 — Ken Coar								
Navigation	Introduction								
About the OSI	Open source doesn't just mean access to the source code. The distribution terms of open-source software must comply with the following criteria:								
○ The Open Source Definition									
Annotated	1. Free Redistribution								
 Trademark Resources 	The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license shall not require a royalty or other fee for such sale.								
Open Source Licenses									
Open Standards 2. Source Code									
 Maining insis Getting Help 	Mailing lists The program must include source code, and must allow distribution in source code as well as compiled form. Where some form of a product is not								
• Terms of Service	distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost preferably, downloading via the Internet without charge. The source code must be the preferred form in which a programmer would modify the								
o create content	program. Deliberately obfuscated source code is not allowed. Intermediate forms such as the output of a preprocessor or translator are not allowed.								
	3. Derived Works								
 OSI Board 	The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original								
email	software.								
 Site Admin 	4. Integrity of The Author's Source Code								
email	The license may restrict source-code from being distributed in modified form only if the license allows the distribution of "patch files" with the source								
	code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code								
User login	The license may require derived works to carry a different name or version number from the original software.								
Username: *	5. No Discrimination Against Persons or Groups								
	The license must not discriminate against any person or group of persons.								
Password: *	6. No Discrimination Against Fields of Endeavor								
		100% -							

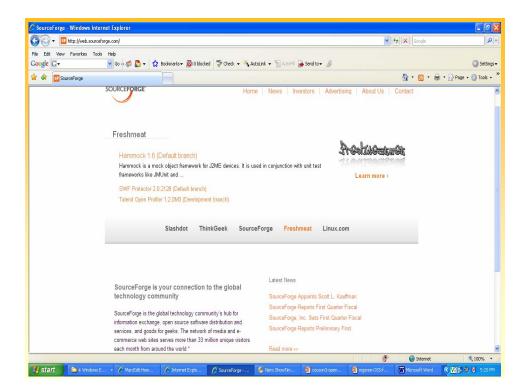


Different Open Source Licenses

- GNU GPL ("General Public License")
- GNU Lesser GPL
- BSD License
- Mozilla Public License
- IU Open Source License
- And more...

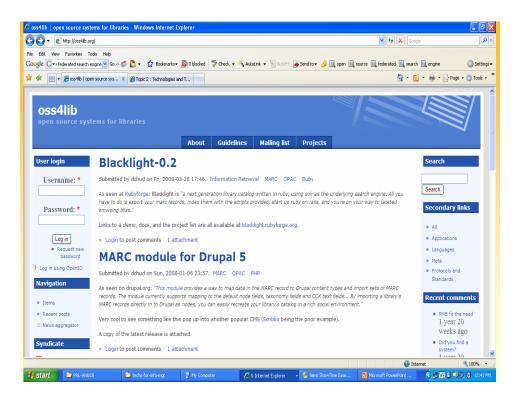




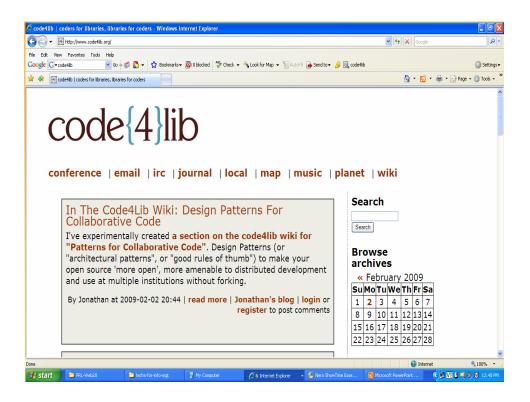


C So	ourceF	orge.net: Software Search	ı - Windows Internet	Explorer									- - X
Ø	0.	SE http://sourceforge.net/se	earch/?type_of_search=sol	t&words=dspace						¥ 4 🗙	Google		ب و
File Goo	ogle 🕻	View Favorites Tools He	ଦେ ବ 🐗 퉣 👻 🏠	Bookmarks 👻 👰 0 block	ed Å	🏷 Check 👻 🔦 A.	i toLink 👻 AutoFil	👍 Send b	o* Ø	0	• 🗟 •	() Settings +
~	~	ar sourcerorgement sortware s	sarch								<u> </u>	alle Fillinge di	, 1000 ·
S	OL	IRCEFORGE.N	ET			<u>Log ir</u>	n <u>Create accou</u>	<u>unt C</u>	ommunity Jobs Help	2		Sear	ch
	Sea	irch results in pi	rojects found	for "dspace	e"							Search He	elp 📲
	Resi	ults 1 - 10 of 12							Display: <u>Details</u>	Images	<u>Filter</u>	View: 10	~
	Unix name: dspace (Unix name: dspace), <u>DSpace</u> (Unix name: dspace), <u>Dspace</u> (Unix name: rudspace)												
	Nan	ne		<u>Relevance</u>	0	Activity	Rank		Registered	<u>Latest File</u>		Downloads	
	DS	pace		_		99.22%	1,8	<u>867</u>	2001-02-06	2008-09-	10	116,757	
	foci 5 S	en Source Digital Assei us on educational and <u>ervices (2)</u> <u>Member</u> c: <u>Archiving</u> , <u>Library</u>	research material		s sei	rvices for acc	ess, provision, s	steward	ship and re-use of digi	tal assets wi	ith a	Download 🕀	
	Tra	ckback for DSpa	<u>ce</u>	_		91.23%	<u>21</u> ,	<u>091</u>	2008-11-24	2008-11-	26	17	
	₩ M Topi	lembers (1) c: MARC and Book/Libra	ry Metadata	This code was d	evel	oped under th	ie JISC funded (Claddier	and Storelink projects			Download	
	DS Det	pace Comment A	dd-on Search			65.03%	<u>84,</u>	<u>056</u>	2007-05-04	2007-05-	09	25	~
Done					_			1			🛃 Internet	1000	100% • 🧋
4	star	🔁 4 Windows E 🝷	🖉 MarcEdit Hom	🖉 Internet Explo	C	SourceForge.n	🥙 Nero ShowTim	Q 00	coon3-open 📴 mgsree-OS	S-f 👿 Mic	rosoft Word	1 (<u>v</u> e 19 9, v	5:11 PM

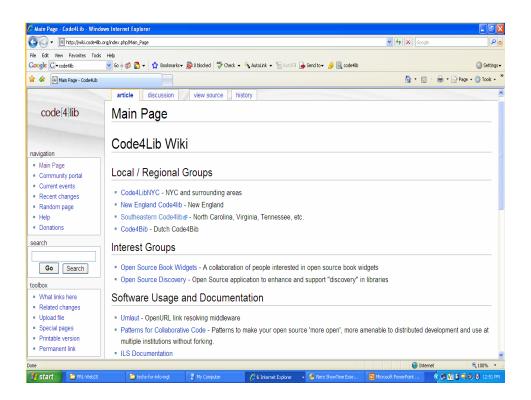




🛐 🗸 🙋 http://oss4lib.	oralprojects					✓ 44 × Goi	ade
Edit View Favorites							
	n engine 🗸 Go 🍬 🍏 🎝 👻 🏠 Bookmarks	👻 🚳 🛙 blocked	ABC Check 👻 🐴 Au	tolink 👻 🗐 AutoFil 🖟	Send to + 🔏 🕼	onen 🗐 source 🗐 federated 🗐 sear	ch 🔍 engine 🛛 🕥 Sel
			V		,		
🎗 😸 🔹 🏈 Items os	s4lib 🛛 🗶 🌈 Topic 2 : Technologie:	and T				<u> </u>	🕥 🔹 🖶 🔹 🔂 Page 🔹 🎯 Too
oss4lib							
	stems for libraries						
open source sy	stems for indianes						
		About	Guidelines	Mailing list	Projects		
		About	duideimes	Pidining insc	Trojecto		
User login	Home						Search
	Items						
Username: *							
	Latest Items						Search
Password: *	Blacklight-0.2						Secondary links
1 4350010.	MARC module for Drupal 5						
	• RefDB-0.9.9						• All
Log in	Evergreen-1.2.0						 Applications
Request new	• DAF-2.0						 Languages
password	TextCite-1.0.2						Meta
Log in using OpenID	 Article: Fac-Back-OPAC: An Op Scriblio released 	ien Source Inter	rface to Your Libra	ary System			Protocols and
Navigation	LibrarvFind-0.8.2						Standards
	 d3data-1.5.1 						
• Items							Recent comments
 Recent posts 	Article Catego	ories					PMB fit the need
O News aggregator	Applications (491)						1 year 20
	 Applications (491) ADA (1) 						weeks ago
Syndicate	 Bibliography (62) 						 Did you find a



The Code4Lib Journal - Issue	5 - Windows Internet Explorer			
😋 💽 👻 🖪 http://journal.code4	b.org/issues/issue5		🖌 🛃 🗙 Google	- 9
File Edit View Favorites Tools	Help V Go & @ R + 👷 Bookmarks - 🔊 Oblocked 🖤 Check - 🔨 AutoLink - Sakoffi 🔒 Se	end to 🖌 🥖 🔯 codedito) Settings -
🔆 💠 🔄 The Code4Lib Journal - I		nu to i 🍃 🖳 to to ind	👌 • 🔊 • 🖶 • 🛙	
code{4}	Mission Editorial Committee Proce	ss and Structure Code4Lib ISSN 1940-5758		5
	Issue 5			
Search	Editorial Introduction - Issue 5 Emily Lynema			
Current Issue Issue 5, 2008-12-15 Previous Issues	Welcome to the 5th issue of the Code4Lib Journal. We've come a long way in just over a few minutes to celebrate those accomplishments with us as you explore issue 5 and re ideas, and experiences shared there. Let's learn from each other.			
Issue 4, 2008-09-22 Issue 3, 2008-06-23	‡biblios: An Open Source Cataloging Editor			
Issue 2, 2008-03-24 Issue 1, 2007-12-17	Chris Catalfo			
For Authors Call for Submissions Article Guidelines	Tabilios is an open source cataloging editor designed to allow libraries to perform copy a web based environment. Ibiblios allows users to search for, edit, and save bibli MARC211MARCMI. formats. It also allows users to send records directly to integrated lib Koha ILS. Where most MARC editors are part of an integrated library system (and the Ibiblios allows users to catalog with an open source standalone system available any Unlike other cataloging editors, it offers an attactive user interface for searching, savi records. This article describes the system architecture and design of tibiblios.			
	User-Centred Design and Agile Development: Rebuilding the Swedish Natio	nal Union Catalogue		
	Henrik Lindström and Martin Malmsten			
	With a new generation of OPACs emerging that attempt to address longstanding shortcr sure that we do not lose ground again in the future? This article suggests a combination of			
	and a second design of a construction of a second		😜 Internet	🔍 100% 🔹
🛃 start 📄 🖻 PRL-Web20	😂 techs-for-info-mgt 🛛 💈 My Computer 💋 6 Internet Explorer 🔹 🕯	🚳 Nero ShowTime Esse 🛛 🖪 M	licrosoft PowerPoint 🛛 🔿 🗾 🔽	🔋 🔍 🌒 🔰 12:49 PM





Categories of Open Source Software

- Operating Systems
 - Linux, Free / Open BSD, Open Solaris...
- Programming Languages
 - Perl, PHP, Python
- Applications
 - Apache, Tomcat, emacs, grep, MySQL, sendmail, ssh

Open Source Software for DLs

 Linux, Apache, Tomcat, PHP, Perl, DLXS, ImageMagick, Unreal Media Server, Greenstone, DSpace, ePrints, FEDORA, CDSWare, MySQL, Darwin Streaming Server, emacs, CVS, Webalizer, LibXML, LibXSLT, Saxon, and more!

Some categories of open source library software

- Library-oriented search enginesCheshire, Pears, dbWiz...
- Z39.50 toolkits
 - ZetaPerl (Perl), JAFER (Java), YAZ (C/C++), Mercury Z39.50 Client...
- MARC parsers
 - MARC.pm (Perl), MARC4J (Java)
- MarcEdit http://oregonstate.edu/~reeset/marcedit/html/inde x.php
- Image processing
 - ImageMagick, tiffinfo/tiffdump

Some categories of Open Source Library software / Open Standards

- Portals
 - MyLibrary
- OAI service providers and data providers
 - PHP OAI Data Provider
 - Lots! See <u>www.openarchives.org</u>
- METS tools
 - Page turners, toolkits, more: see <u>www.loc.gov/mets/</u>
- Dublin Core
 - http://dublincore.org

Web Server

- Apache
- Lots in Java! see at...
 - http://java-source.net/open-source/web-servers

Database Management Systems (DBMS)

- MySQL
- PostgreSQL
- mSQL
- CDS/ISIS, Win/ISIS, GenISIS etc.

Web Server-Side Scripting

PHP

- Architecture
 - Linux, Apache, MySQL, PHP (LAMP)
 - Windows, Apache, MySQL, PHP (WAMP)

Web Services

- Apache Tomcat Web Container/Service
- Apache Cocoon Content Framework/Service
- Apache Ant Build Tool

Integrated Library Management System (ILMS)

Managing legacy systems

- **KOHA**
 - http://www.koha.org/
- Evergreen
 - http://wiki.code4lib.org/index.php/Evergreen
- Emilda
 - http://wiki.code4lib.org/index.php/Emilda
- OpenBiblio
 - http://wiki.code4lib.org/index.php/OpenBiblio
- phpMyLibrary
 - http://wiki.code4lib.org/index.php/PhpMyLibrary
- NewGenLib
 - http://www.verussolutions.biz/

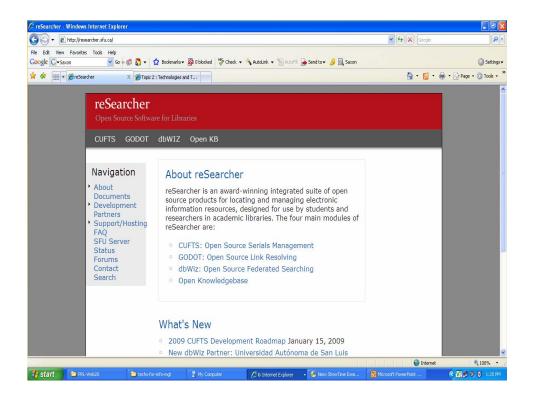
Server Log Analysis

- Webalizer
 - http://www.webalizer.org/

Z39.50 Protocol

for online/remote Search & Retrieval (http://www.loc.gov/z3950/)

- Interoperability standard (ANSI/NISO Standard) and a software which facilitates crossdatabase/archives search
- A client-server protocol for searching and retrieving information from remote computer databases
- YAZ Z39.50 Client http://indexdata.com/yaz/
- Mercury' Z39.50 Client http://www.basedowinfosys.com/projects/mzc



Serials Manager

CUFTS

http://researcher.sfu.ca/cufts

Citation Manager

- Citation Manager (from PKP, Simon Fraser University, Canada)
 - Bibliographic Management (http://researcher.sfu.ca/cm)

Link Resolving

- GODOT Electronic (Online) Resources Management
 - http://researcher.sfu.ca/godot

Open Journal Publishing

OJS

http://pkp.sfu.ca/ojs

Open Conference Systems

- OCS : Conference workflow automation
 - http://pkp.sfu.ca/ocs

Open URL Systems

- Open URL 1.0
 - http://www.oclc.org/research/ software/openurl/default.htm

Open Digital Libraries

- Greenstone
- DSpace
- Eprints
- **FEDORA etc.**

Open Access Archives / IRs

- DSpace
- Eprints
- **FEDORA**
- **CDSWare**
- Greenstone etc.

Learning Management Systems (LMS)

E-learning Systems

- Moodle
- Manhattan etc.

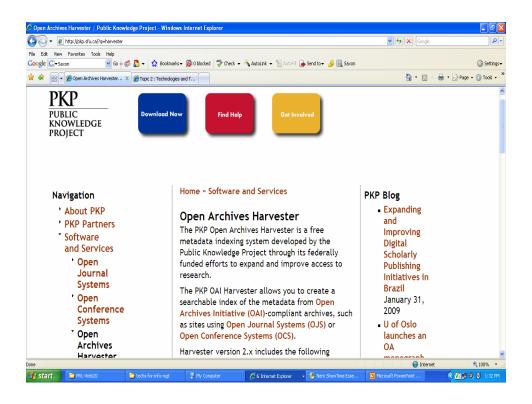
Content Management Systems (CMS)

- Drupal
- Joomala
- MediaWiki
- Wordpress

Open Archives Harvester

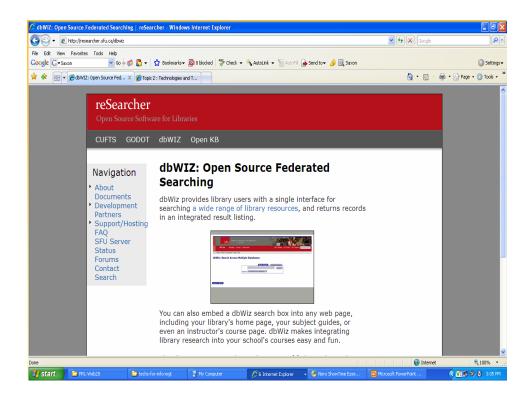
Harvester

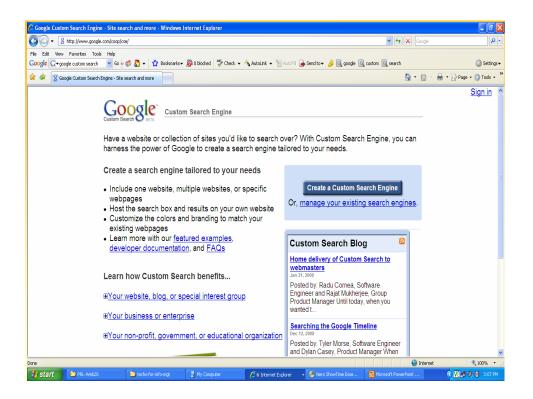
http://pkp.sfu.ca/harvester



Federated Searching

- dbWiz : PKP Project
 - http://researcher.sfu.ca/dbwiz
- Google Custom Search
 - http://www.google.com/coop/cse/

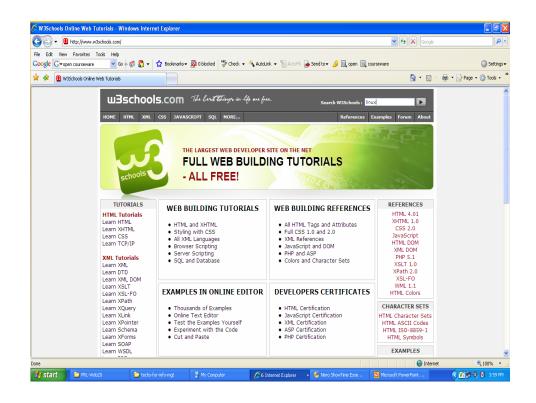




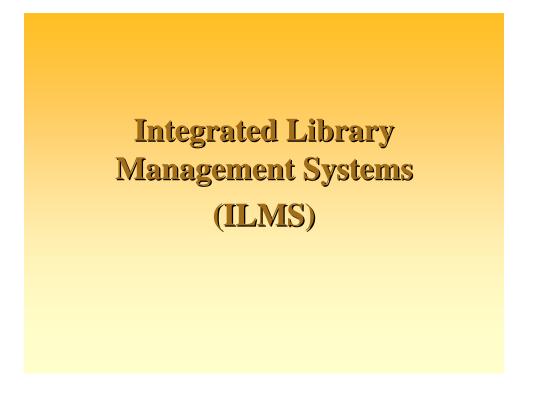


Open Courses

- WWW.W3SCHOOLS.COM
- Open Courseware http://ocw.mit.edu/







Library Automation is the Foundation to all Library Modernization Activities

- Proprietary Solutions are Expensive
- HighTech ILMS Packages are very much available in the OSS Domain
- Selection of the Software is to be done judiciously as the success or failure may have lasting impacts

• For this tutorial, KOHA ILMS is showcased

Features of ILMS

- Separates software functions into discrete programs called modules, and integrated then into a unified interface.
- Acquisitions (ordering, receiving, and invoicing materials),
- **Cataloging** (classifying and indexing materials),
- **Circulation** (lending materials to patrons and receiving them back),
- Serials (tracking magazine and newspaper holdings), and the
- **OPAC** (public search/retrieval interface for users). Each patron and item has a unique ID in the database that allows the ILS to track its activity.

Features of KOHA

- Koha is an open-source Integrated Library System (ILS).
- It supports global standards including MARC 21 bibliographic format;
- Z 39.50 information retrieval protocol;
- Web-centric architecture (no additional software/utility is required at the client side).
- Provides tremendous freedom for customization.
- Has all the modules of LMS (Acquisition, Cataloguing, Circulation, OPAC, Membership Management, System Administration, Serial Control, etc.)
- Web based OPAC system (allows the public to search the catalogue in the library, from campus and at home).

Features of KOHA...

- The software is UNICODE compliant. The creation and retrieval of Indic script based documents is possible.
- Export/Import and backup/restoration facilities are available.
- Includes features of fourth generation Library Management Software (LMS).
- Runs on Linux, Unix, Windows and MacOS platform.
- Koha uses Apache Web server, MySQL as backend RDBMS and Perl (Programming language for serverside scripting).
- All these softwares are open source.

KOHA on Windows

Installation

(XP/2000 Server)



OS / Software Requirements

- Windows XP/2000/Server
- Webserver- Apache
- Database- MySQL
- Programming Language Perl

Installation

Apache-2.0.63 http://www.apache.org/dist/httpd/binaries/win32/apache_2.0.63-win32-x86-no_ssl.msi

MySQL-4.1 http://dev.mysql.com/downloads/mysql/4.1.html

ActivePerl-5.8.8.822-MSWin32-x86 <u>http://downloads.activestate.com/ActivePerl/Windows/5.8/ActivePerl-5.8.8.822-MSWin32-x86-280952.msi</u>

Koha (2.2.9-W32-R1) <u>http://www.koha.rwjr.com/downloads/Koha2.2.9-W32-R1.EXE</u>

Click on Apache Source and Run

	Apache License
	://www.apache.org/licenses/
TERMS AND CONDITIONS F	OR USE, REPRODUCTION, AND DISTRIBUTION
"License" shall mean the t	erms and conditions for use, reproduction, and Sections 1 through 9 of this document.
 I accept the terms in the licen: 	se agreement
I do not accept the terms in th	ne license agreement
	< Back Next > (hn) Cancel

Server Details ...

- Network Domain localdomain
- **Servername -** localhost
- Administrators Email your email-ID
- Install for all Users on Port 80
- Select Set up Type as "**Typical**"
- Destination Folder **Default**
- Go ahead and Install
- Once the Apache installation wizard completes its task, you will find a Feather Icon in your System Tray

Apache Service Monitor		
	PACHE	
	PACHE	
Service Status : Apache2.2		<u>o</u> k
wampapache		
		<u>S</u> tart
		Stop
	<u></u> B	estart
	Se	er <u>v</u> ices
		onnect
	Dis	connect
		E <u>x</u> it
Apache/2.2.9 (Win32)		

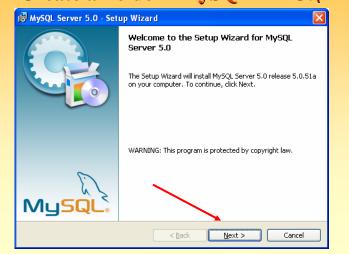
You can now Start/Stop Apache

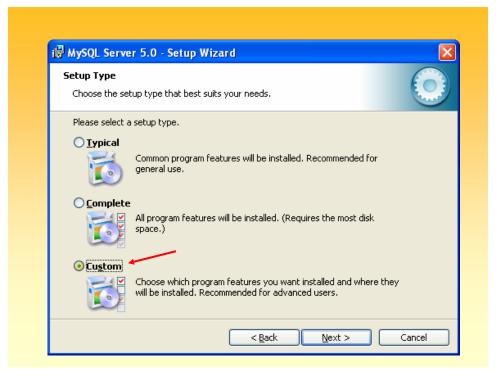
Run	? 🛛
-	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	services.msc 💌
	OK Cancel <u>B</u> rowse

Services							
File Action View	Help						
+ + 10 2	8 8 2 > • • •						
Services (Local)	Services (Local)						
	· services (cocal)	-					
	Apache2.2	Nate /	Description	Salus	Startup Type	Log On As	
	Apachez.z	Alerter	Notifies sel.		Disabled	Local Service	1
	Shop the service	Acache Toncat	Apache To		Manual	Local System	
	Restart the sense	Apacter2.2	Acate/2	Rated	Adverter	Local System	
	The start of the second	Application Layer G	Provides s	Rated	Manual	Local Service	
		Application Manage	Provides s		Manual	Local System	
	Description.	Automatic Lipdates	Enables th	Started	Automatic	Local System	
	pache/2.2.9 (Win32)	Sackground Intellig	Transfers		Manual	Local System	
	and a contract of the second	Clpbook	Enables Cl		Disabled	Local System	
		COM+ Event System	Supports S	Rated	Manual	Local System	
		COM+ System Appl	Manages t		Manual	Local System	
		Computer Browser	Mantans a.	Rated	Automatic	Local System	
		Cryptographic Servi	Provides th	Rated	Automatic	Local System	
		DCOM Server Proce	Provides la	Started	Automatic	Local System	
		SCHCP Clent	Manages n	Started	Automatic	Local System	
		Sistributed Link Tra			Automatic	Local System	
		Bustributed Transac			Manual	Network 5	
		Stat Client	Resolves a		Automatic	Network S	
		Stror Reporting Ser			Automatic	Local System	
		Event Log	Enables ev		Automatic	Local System	
		Fast User Switching	Provides m	Rated	Manual	Local System	
		Scoogle Lipdater Ser			Manual	Local System	
		Help and Support	Enables He		Automatic	Local System	
		HID Input Service	Enables ge		Automatic	Local System	
		SHITP SSL	This servic		Manual	Local System	
		BINNPI CD-Durning C			Manual	Local System	
		SIndexing Service	Indexes co		Manual	Local System	
		Sintel(R) PROSet/WI			Automatic	Local System	
		Sintel(R) PROSet/WL			Autometic	Local System	
		Sintel(R) PROSet/Wil			Automatic	Local System	
		Sintel(R) PROSet/WI			Automatic	Local System	
		BIPSEC Services	Manages 1		Automatic	Local System	
		Copical Disk Manager	Detects an		Automatic	Local System	
		Cogical Disk Manage			Manual	Local System	
		Willee Franework	Shared co	Rated	Automatic	Local System	
	Estended Randard /	da to Alas to Pasti	manador U	Rated	Adventio	I and Tructure	

Installing MySQL

Click on MySQL Setup Create a Folder "MySQL" in C:\





Custom Setup Select the program features you want installed.	
Click on an icon in the list below to change how a feature MySQL Server Client Programs MySQL Instance Manager Documentation Developer Components	re is installed. Feature Description Installs the MySQL-server executables. This feature requires 44MB on your hard drive.
Install to: C:\Program Files\MySQL\MySQL Server 5.0\	Change

Change Current Destination F Browse to the destination folder		\odot
Look in:		 •
Documents and Settings Docpace documents Docpace Docpace Docpace-UM-Workshop etc Greenstone-Support	Han ICoLIS08 Intel koha2.2.9 Manakin-1.1	MGS-Family-KL-C mgs-hp-toshiba- MySQL cs-1.1.7 PadmanabhaTen PeaZip
Eolder name:		
C:\MySQL\		

Custom Setup Select the program features you want installed.	0
Click on an icon in the list below to change how a feature i MySQL Server Client Programs MySQL Instance Manager Documentation Developer Components	s installed. Feature Description Installs the MySQL-server executables. This feature requires 43MB on your hard drive.
Install to: C:\MySQL\	

MySQL Server 5.0 - Setup	
eady to Install the Program The wizard is ready to begin insl	E 🔿
	any of your installation settings, click Back. Click Cancel to
exit the wizard. Current Settings:	
-	
Setup Type:	
Custom	
Destination Folder:	
C:\MySQL\	
	\sim

	g MySQL Server 4.1 gram features you selected are being installed.
P	Please wait while the Setup Wizard installs MySQL Server 4.1. This may take several minutes.

You will be asked for MySQL.Com Sign Up which you can Skip by selecting Skip Sign-Up



Select Standard Configuration

Instance Config VySQL Server 4.1	
	Server instances
Windows ontions	
	imended way to run the MySQL server
on mindomor	
Courdes News	MySQL
bervice Maine:	MySQL
	Launch the MySQL Server automatically
	n to include the directory containing the «ecutables in the Windows PATH variable
	alled from the command line.
	on Windows. Service Name: Directory in W Check this optior

	Instance Configurati		C
	e MySQL Server 4.1 server		
Please set th	ne security options.		
Modify 9	Security Settings		
	New root password:	*****	Enter the root password.
root	Confirm:	*****	Retype the password.
		Enable root	access from remote machines
Create A	n Anonymous Account		
2	This option will create a note that this can lead I		unt on this server. Please em.

1ySQL Ser	ver Instance Confi	guration		C
Configure	the MySQL Server 4.1	1 server instance.		
Ready to e	execute			
	O Prepare configura	ation		
	🔿 Write configuratio	on file		
	O Start service			
	 Apply security set 	tings		
	Please press [Exec	ute] to start the	e configuration.	

lySQL Server Insta	ce Configuratio	1	6
Configure the MySQL			
Processing configurat	ion		
O Prepare	configuration		
	onfiguration file		
🔾 Start se	rvice		
O Apply s	ecurity settings		

1ySQI	Server Instance Configuration
Conf	gure the MySQL Server 4.1 server instance.
Proc	ssing configuration
	♂ Prepare configuration
	of Write configuration file (C:\mysql\my.ini)
	Start service
	S Apply security settings
	Configuration file created. Windows service MySQL installed. Service started successfully. Security settings applied.
	Press [Finish] to close the Wizard.

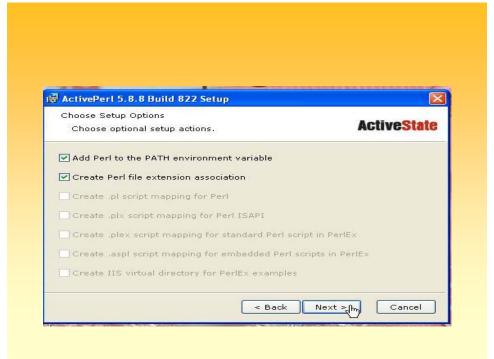
on View	Help						
E d [B 😰 🕨 🖬 🗰						
s (Local)	Services (Local)						
	a surrect (criticity)	1				1	
	MySQL	Name /	Description	Ratus	Startup Type	Log On As	
		COM+ System Appl			Manual	Local System	
	Stop the service	Computer Browser	Maintains a		Automatic	Local System	
	Pause the service	Cryptographic Servi			Automatic	Local System	
	Restart the service	DCOM Server Proce			Automatic	Local System	
	Contraction of the second s	DHCP Client	Manages n	Started	Automatic	Local System	
		Distributed Link Tra		Started	Automatic	Local System	
		Distributed Transac	Coordnate		Manual	Network S	
		CNS Client	Resolves a	Stated	Automatic	Network S	
		Error Reporting Ser	Allows erro	Started	Automatic	Local System	
		Event Log	Enables ev	Rated	Automatic	Local System	
		Fast User Switching	Provides m	Started	Manual	Local System	
		Google Updater Ser			Manual	Local System	
		Help and Support	Enables He	Rated	Automatic	Local System	
		HID Input Service	Enables ge	Rated	Automatic	Local System	
		CONTRACTOR SS.	This servic		Manual	Local System	
		MAPI CD-Burning C	Managers C		Manual	Local System	
		Tindexing Service	Indexes co		Manual	Local System	
		antel(R) PROSet/Wi			Automatic	Local System	
		Sitel(R) PROSet/Wi			Automatic	Local System	
		Thtel(R) PROSet/WL.			Automatic	Local System	
		Santek(R) PROSet/ML			Automatic	Local System	
		SPSEC Services	Manages I		Automatic	Local System	
		Cogical Disk Marvager			Automatic	Local System	
		Logical Disk Manage			Manual	Local System	
		McA/ee Franework			Automatic	Local System	
		McAfee McShield	Provides M		Automatic	Local System Local System	
		McAfee Task Manager			Automatic	Local System Local System	
		MoMessenger	Transmits	Started	Disabled	Local System	
		MS Software Shado			Manual	Local System	
	L 🔺	This software shado	Nanages s	Sated			
					Automatic	Local System	
		MDService	Nero BackI		Manual	Local System	
		Net Logon	Supports p		Manual	Local System	
		NotMeeting Remote			Manual	Local System	
		Network Connections		Started	Manual	Local System	
	Datended (Standard /	Ballanin Ine	freedown		Privable.d	Local Contrast	

Click o	stalling Perl n Active Perl Setup Folder "usr" in C:\
🙀 ActivePerl 5.8.8 Build 822	Setup 🔀
~	Welcome to the ActivePerl 5.8.8 Build 822 Setup Wizard
A.FC	The Setup Wizard will install ActivePerl 5.8.8 Build 822 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
ActivePerl	
ActiveState www.ActiveState.com	

ActivePerl 5.8.8 Build 822 Li	cense Agreement	Note
End-User License Agreement		
Please read the following licer	nse agreement carefully	ActiveState
ActivePerl C	community License v2.1	~
Preamble:	, <u>, , , , , , , , , , , , , , , , , , </u>	
This license establishes the tern modified, distributed and/or redis Software Inc. ("ActiveState") ma distribution of the Package, while the Package in a variety of ways arrangements wholly outside of t terms of this license do not perm	stributed. The intent is that A intains control over the develo e allowing the users of the Pa c. You are always permitted t this license directly with Activ	ctiveState opment and ackage to use omake veState. If the
I accept the terms in the Lice	nse Agreement	
O I do not accept the terms in t	he License Agreement	

ActivePerl 5.8.8 Build 822 Set	up		5
Change current destination folder Browse to the destination folde		A	ctiveState
Look in: 📄 Local Disk (C:)		~	
Program Files Program-CD-UM QUARANTINE Ring-Tones Six-PC	Ts-Ps UM Toshiba update usr wamp WINDOWS		
TERI-GSDL-Workshop-2009 toto folder name: C:\usr\		1111	<u> </u>
		ОК	Cancel

🛃 ActivePerl 5.8.8 Build 822 Setup	2
Custom Setup Select the way you want features t	o be installed.
Click on the icons in the tree below to	change the way features will be installed.
ActivePerl Perl Perl Perl Documentation Examples	ActiveState ActivePerl is a quality-assured distribution of Perl and other value-additions This feature requires 0KB on your hard drive. It has 4 of 4 subfeatures selected. The subfeatures require 26MB on your hard drive.
Location: C:\usr\	Br <u>o</u> wse
Reset Disk Usage	< Back Next > Cancel

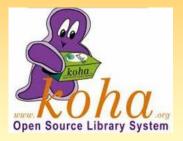


eady to Install The Setup Wizard is ready to begin the Custom Installation	ite
Installation	

ActivePerl 5.8.8 Build 822 Setup		×
Installing ActivePerl 5.8.8 Build 822	А	ctive <mark>State</mark>

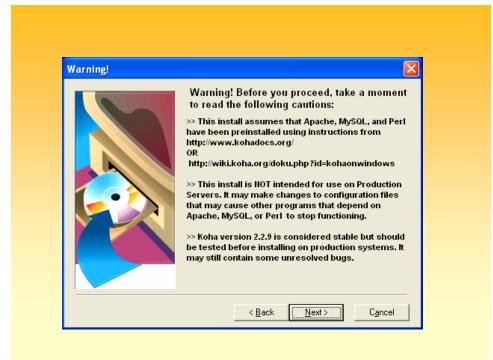


Installing KOHA

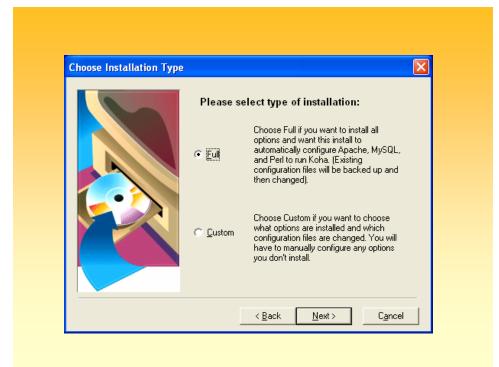


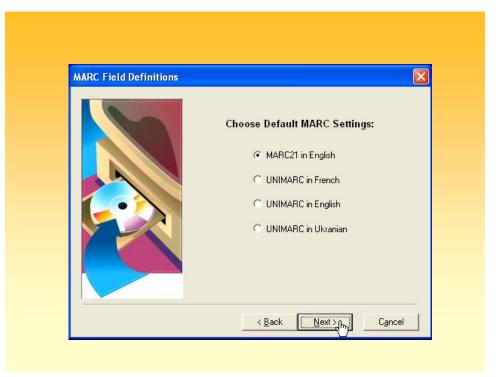






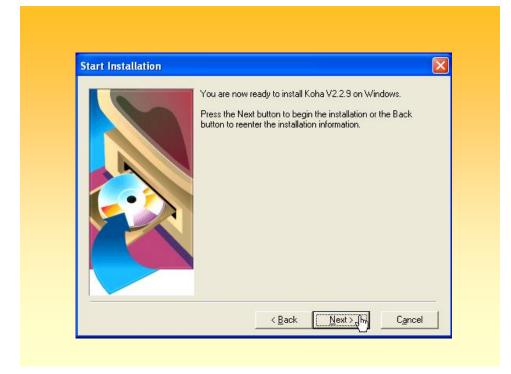
iew Release Notes	
RELEASE NOTES	^
Koha is the first Open-Source Integrated Library System.	≡
Koha is a full-featured open-source ILS. Developed initially in New Zealand by Katipo Communications Ltd and first deployed in January of 2000 for Horowhenua Library Trust, it is currently maintained by a team of software providers and library technology staff from around the globe.	
Koha 2.2.9 is more than 250,000 lines of code (see : http://bureau.paulpoulain.com/cvslog/) , contributed by about 50 different developers (46, +translators).	
More than 100 libraries are registered as users on wiki.koha.org, and we are sure that at least 300 libraries use the software. There are 2 projects derived from Koha.	
WARNINGS	
======= * The librarian interface is tested only with Mozilla/Firefox. Should work	~





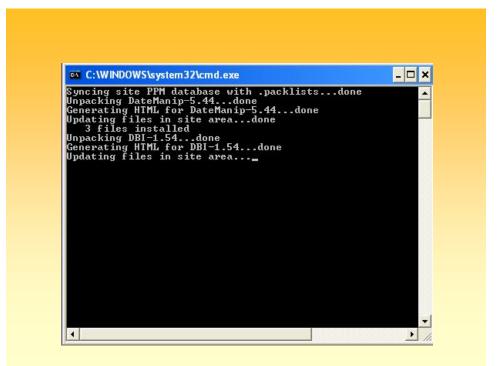
az Toolkit License		
Please review and	ex Data is included in this install. I accept their license agreement. ion, visit http://www.indexdata.dk/yaz/	
Revised BSD License Copyright © 1995-2006 Index Data. All rights reserved.		
Redistribution and use in source and are permitted provided that the follow	binary forms, with or without modification, ing conditions are met:	
Redistributions of source code must r of conditions and the following discla	etain the above copyright notice, this list imer.	
Redistributions in binary form must rep list of conditions and the following dis other materials provided with the distr		
	he names of its contributors may be used to from this software without specific prior	

This installation program can create backup copies of all files replaced during the installation. These files will be used when the software is uninstalled and a rollback is requested. If backup copies are not created, you will only be able to uninstall the software and not roll the system back to a previous state. Do you want to create backups of the replaced files?
⊂ N <u>o</u>
Please select the directory where the replaced files will be copied.
Backup File Destination Directory
c:\usr\koha229\backup Browse

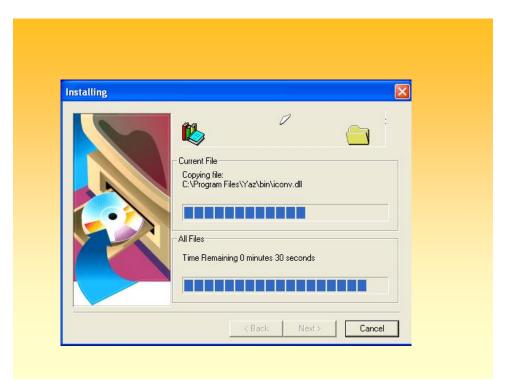


🛚 🌇 🕺 🦳
Current File Copying file: c:\usr\koha229\intranet\htdocs\intranet-tmpl\default\es\i
All Files Time Remaining 10 minutes 50 seconds

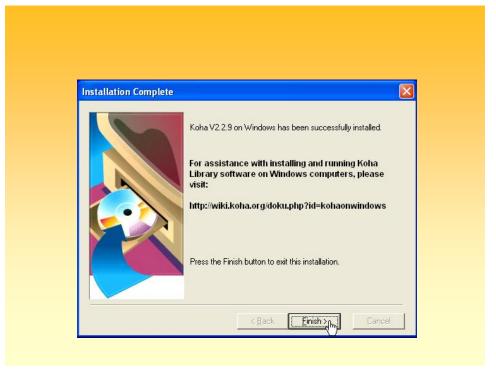
Current File Copying file: c:\usr\koha229\opac\htdo	pes\opac-tmpl\css\it\opac-full-s
-All Files Time Remaining 2 minutes I	0 seconds

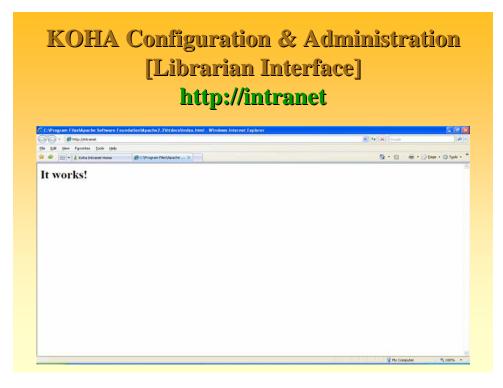


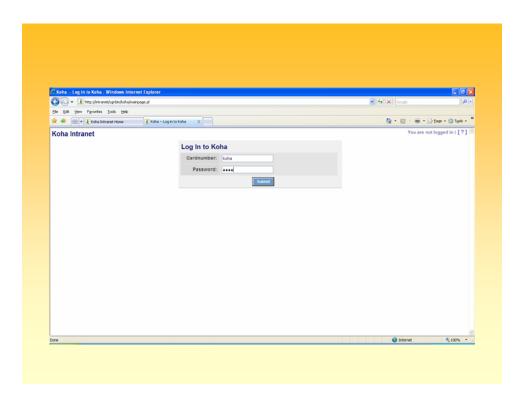
C:\WINDOWS\system32\cmd.exe	- 🗆 ×
Generating HTML for DBI-1.54done Updating files in site areadone 106 files installed 2 files updated Unpacking DBD-mysg1-3.0002done	
Generating HTML for DBD-mysql-3.0002done Updating files in site areadone 14 files installed	
Unpacking HTML-Template-2.9done Generating HTML for HTML-Template-2.9done Updating files in site areadone 2 files installed	
Unpacking MARC-Record-2.0done Generating HTML for MARC-Record-2.0done Updating files in site areadone 19 files installed	
Unpacking File-Spec-0.82done Generating HTML for File-Spec-0.82done Updating files in site areadone	
_14 files installed Unpacking Digest-MD5-2.24done Generating HTML for Digest-MD5-2.24done Updating files in site areadone	
6 files installed Unpacking Mail-Sendmail-0.79done Generating HTML for Mail-Sendmail-0.79	Ŧ



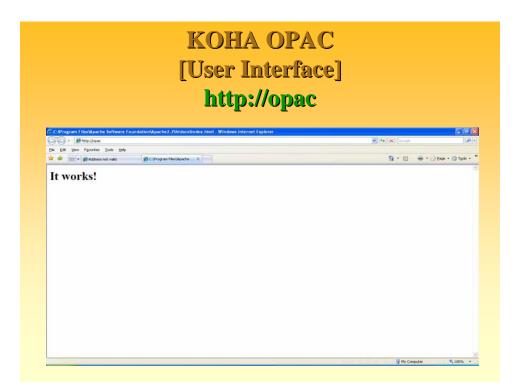
Reenter Connec	ion Information	4
Please re-enter for an Administra	connection information tive user (ROOT) for his install needs to	







6				
Koha Intranet Home - Windows Int			V 4 X Google	. e
😋 🕗 🔹 🗼 http://intranet.jogi-bin/kol			Google 😽 🛪 Google	~
Ele Edit Yew Favorites Tools Hel				
😤 🔗 🔹 🗼 Koha Intranet Home	k Koha Intranet Home ×			Page • 🔘 Tgols •
Koha Intranet			Logged in as: koha	Log Out [?]
Koha	Circulation			
Koha intranet home	Issues Returns Trans	sfers Set Branch		
Circulation	Patrons			
Issues image to:		date, or delete a record, check accounts, & r	enew items. Enter Name or Barcode	
Returns		Search		
Reserve List	Catalog Search			
Transfers	Search bibilographic records	Outob Oceanty	Start search Advanced Search	
Patrons Search: Search	Virtual shelves	Quick Search.	Advanced Search	
	Catalogian	=	- Maka Administration	
Catalog Quick Search	Cataloging Advanced Cataloging	Accounts and Reports Till reconciliation, overdues, and	 System Administration Home 	
Start search	Acquisitions Authorities	inventory	 System Preferences Barcodes generator 	
Cataloging	Serials		 Book funds 	
Add MARC			 Import to reservoir Spine and Barcode Labels 	
Acquisitions Authorities				
Serials				
Virtual Shelves				
Accounts and Reports				
Koha Administration				
System Administration System Preferences				
About Koha				
Logged in as: koha				





KOHA Demo

- Intranet
- Opac
- Downloading MARC Records from Library of Congress
- Importing MARC Records into Koha
- Search / Retrieval in the Opac



- > Koha Home http://www.koha.org
- A comprehensive manual on Koha 3.01.x (Linux) is available at:
- https://sites.google.com/a/liblime.com/koha-manual/
- > For **Windows**, it is available at
- > http://www.koha.rwjr.com/Koha_on _Windows.html.
- > Koha Windows version http://koha.rwjr.com/
- > Documentation http://www.kohadocs.org
- Discussion forums http://koha.org/community/mailinglists.html
- > Development Wiki http://wiki.koha.org/doku.php

Greenstone: Open source Software for Building Digital Library Collections





What are digital libraries for?

- Knowledge/content management
 Manage and access internal information assets
- Scholarly communication, education, research
 - > E-journals, e-prints, e-books, data sets, e-learning
- Access to cultural collections
 - Cultural, heritage, historical & special collections, museums, biodiversity
- E-governance
 - Improved access to government policies, plans, procedures, rules and regulations
- Archiving and preservation
- ➤ Many more ...

DL Software: Alternatives

- ➤What are your expectations?
- Develop local web-based application?
- ➤Commercial DL solution?
- Adopt open source software?
 - Greenstone
 - Eprints
 - DSpace
 - ➤ Fedora…

Digital Library Technologies

- > Interoperability
- > Unified interface for heterogeneous libraries
- > Metadata mapping across different libraries
- > OAI-compliant data and service providers
- Multilingual digital libraries
- Scalable digital library architectures
- > Publication tools
- Searching tools

DLs: Workflows and Processes

- ➤Content selection
- ► Content acquisition
- ► Content publishing
 - ► Metadata preparation
 - ➢ Content loading
- ➢Content indexing & storage ➢Maintenance
- Content access & delivery

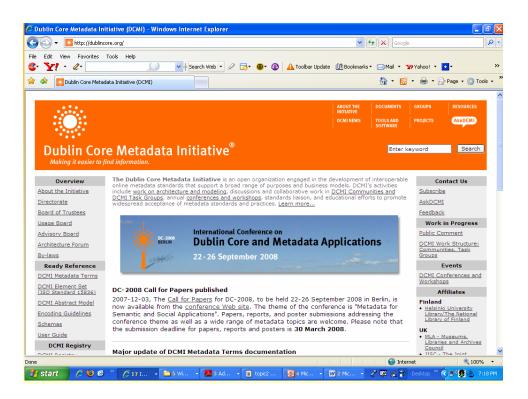
- **≻**Preservation
- >Access management
- ► Usage monitoring and evaluation
- ► Networking and interoperation

DL Software: Key requirements

- Document types (book, journal article, lecture ...)
- Document formats (text, PDF, Word, PS, ...)
- Content acquisition (online and offline)
 - Metadata description, content tagging
 - Content uploading
- Indexing and retrieval
 - Structured/ full text indexing
 - Automatic metadata extraction
- Storage
 - Data compression
 - Efficient storage for metadata
 - Efficient location of metadata and documents
- Access and delivery
 - Structured search, browse, hierarchical browsing
 - CD-ROM distribution

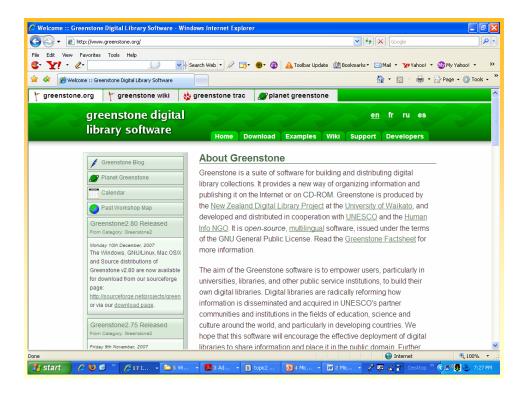
DL Software: More requirements

- Scaling up for large collections
- Multilingual support
- Access management and security
- Usage monitoring and reporting
- Standards compliance
 XML, Dublin Core, Unicode
- Interoperation
 - OAI, Z39.50 compliance, MARC21...



Complete DL Systems

- Greenstone
- DSpace
- Eprints



What is the Greenstone software?

- Software suite for building, maintaining, and distributing digital library collections
- Comprehensive, open-source
- Developed by New Zealand Digital Library Project at the University of Waikato
- Distribution and promotion partners:
 UNESCO
 - ✤Human Info NGO, Belgium
 - NCSI, Bangalore; UCT, Cape Town; Dakar, Senegal; Almaty, Kazakhstan; …
 - ♦You!



<section-header><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item>

Greenstone Features...

- Open Source Philosophy
- Interfacing & Content Delivery via Web
- Multi S/W Platform
- Multi Lingual Support
- Multi Formats
- Structured Metadata in XML using DC
- Metadata Extraction
- Searching & Browsing
- Plug-ins for Documents

- Full-text mirroring
- Text Level Penetration
- Data Compression
- Password protection
- Administrative
 Functions
- Concurrent & Dynamic Content Development
- Uniform Presentation
- Publishing on CDROMs
- International Presence

Greenstone Features contd...

- Easy Installation
- Easy Maintenance
- Content Development (3 alternate ways)
- Predominantly GLI now since (V. 2.41)
- Hierarchy Structure
- Interface Customization
 - Front Page Design, Header for the Digital Library, Collection Icon, Cover Images
- Collection Configuration (Collect.cfg) File
- Scalability, Flexibility
- Interoperability (Crosswalk), OAI Compliance
- Lifeline : Listserv / E-Group / Archives

The power of open source: Greenstone uses ...

Interpreter for Adobe Postscript documents (Postscript plugin)
Keyphrase extraction program (to generate metadata)
Converter for PDF documents (PDF plugin)
Converter for RTF documents (RTF plugin)
Detects languages and document encodings
Converter for Word documents (Word plugin)
Converter for Excel/Powerpoint documents (plugins)
Parses XML documents, used to read and write Greenstone's internal XML document format

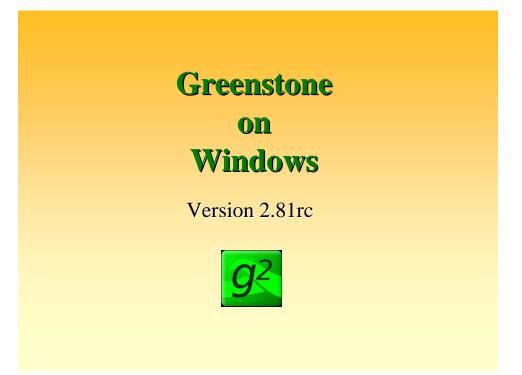
	and
♦ MG	Creates compressed full-text indexes and performs searches
♦ GDBM	Database used for metadata etc
∻ wget	Downloading pages from the Web when creating collections
∻ YAZ	Client and server implementation of Z39.50
* Stemmer	English language stemmer
* GCC	C/C++ compiler
* CVS	Version control system
♦ Perl	Used for plugins etc
* Apache	Web server used by many Greenstone installations
♦ OAI-PMH	OAI Performance

Example Greenstone collections

- Rapid growth in use
- International Many Countries...China, Germany, India, UK, USA, Russia, Malaysia, Singapore... – Almost all countries/Continents
- Increasing activity on Greenstone mailing list
- Promotion by UNESCO "deployment of DL's for sharing public domain information"
- Wide variety of DL collections have been developed in several languages
 - historical, educational, cultural, and research



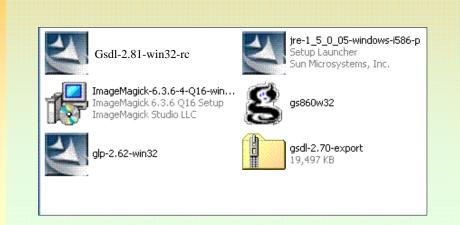
- Runs on Windows (back to 3.1), Linux, Mac OS X, Unix
- Written in C++, Perl, and Java
- Uses MG/MG++ search engine
- Several different Web and Java/Swing user interfaces for various functions
- Web interface for user access





Installing Greenstone

Softwares/Files Required







Installing...Java Runtime Environment (JRE)

JZSE Runtime E	nvironment 5.0 Update 5 - Progress		🚽 J2SE Runtime Environn	nent 5.0 Update 5 - Complete
installing The program feat	res you selected are being installed.	Sun.		Installation Completed
	wait while the Install Wizard installs J2SE Runtime Environment 5.0 5. This may take several minutes.			The Install Wizard has successfully installed J2SE Runtime Environment 5.0 Update 5. Click Finish to exit the wizard.
Status:				
			1	
			Sun java	

Greenstone Installation

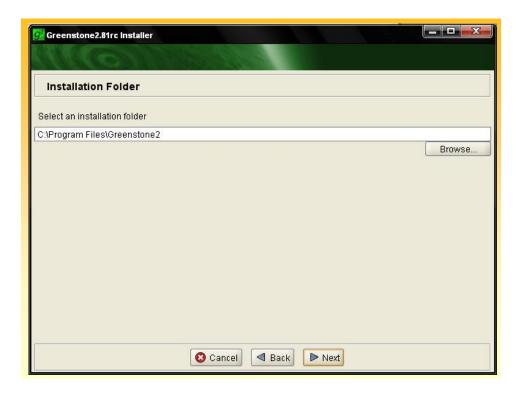
Version 2.81rc







MGN MARK	
Software License	
Greenstone2 is licensed under the GNU General Public License v2	
GNU GENERAL PUBLIC LICENSE	
Version 2, June 1991	
Copyright (C) 1989, 1991 Free Software Foundation, Inc.	
675 Mass Ave, Cambridge, MA 02139, USA	
Everyone is permitted to copy and distribute verbatim copies	
of this license document, but changing it is not allowed.	
Preamble	
The licenses for most software are designed to take away your	
freedom to share and change it. By contrast, the GNU General Public	
License is intended to guarantee your freedom to share and change free	
softwareto make sure the software is free for all its users. This	
General Public License applies to most of the Free Software	
Foundation's software and to any other program whose authors commit to	
using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to	
the GNO Library General Public License Instead.) You can apply it to	



Greenstone2.81rc Installer	<u> </u>
Installation Folder	
Select an installation folder	
C:\Program Files\Greenstone2	
	Browse
Question The folder does not exist, create it? C:\Program Files\Greenstone2 Yes	
🔇 Cancel 🖪 Back 🕨 Next	

🚰 Greenstone2.81rc Installer				
MMG 1	1000			
Components				
Please choose the components you v	wish to inst	all		
Core System	179 MB		0	
Start Menu Shortcuts	~10 KB		0	
ImageMagick with JPEG2000 (6.4.3)	11 MB			
GhostScript (8.63)	10 MB	V	0	
	🖸 Canc	el 🖪 Ba	ck Next	

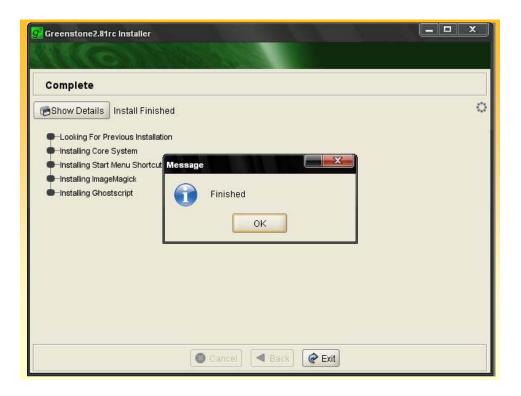
g ² Greenstone2.81rc In	staller 📃 🗖 🔀
(IIIO)	
Please set the Adn	in Password
	parts of the Greenstone interface you need a password. A user with the username you with the password you provide. The password must be between 3 and 20
Admin Password	admin
	Cancel Back Next

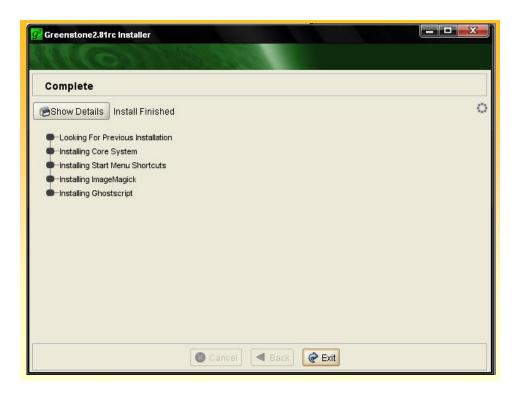
Greenstone2.81rc Installer	
Installation progress	
Show Details Click Install to continue	0
😮 Cancel 🛛 🗬 Back 🕜 Install	

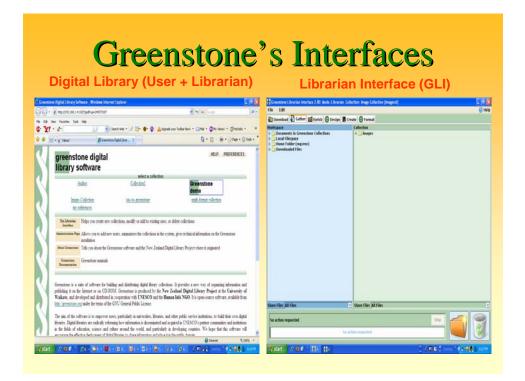
Greenstone2.81rc Installer	
Installation progress	
Bhow Details Click Install to continue	0
Output \ Errors \	
	-
	
😢 Cancel 🛛 🛛 Back 🕜 Install	

Greenstone2.81rc Installer
Installation progress
Show Details Installing Core System
Output \ Errors \
Install native library C:\Documents and Settings\biju\.ov4n\orangevolt-4n-1.1.1.dll antinstaller.jarC:\Documents and Settings\biju\Local Settings\Temp\Greenstone-ohgub\greenstone.jar
Looking For Previous Installation:
C:\Documents and Settings\biju\Start Menu\Programs\Greenstone-2.81rc [echo] basedir: C:\DOCUME~1\biju\LOCALS~1\Temp\Greenstone-ohgub\antinstall [echo] installDir: D:\Program Files\Greenstone2
[echo] antinstaller.jar: C:\Documents and Settings\biju\Local Settings\Temp\Greenstone-ohgub\greenstone [echo] startmenu.path: C:\Documents and Settings\biju\Start Menu\Programs\Greenstone-2.81rc [echo] Creating Installation directory
[unzip] Expanding: C:\Documents and Settings\biju\Local Settings\Temp\Greenstone-ohgub\greenstone.jar [echo] Installing Core Component [unzip] Expanding: C:\Documents and Settings\biju\Local Settings\Temp\Greenstone-ohgub\greenstone.jar
Cancel A Back Ministell

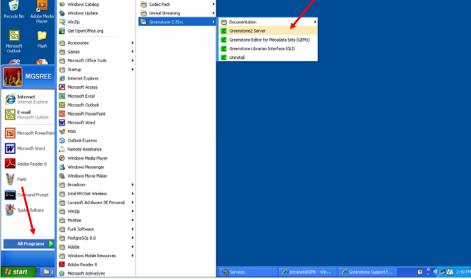
Greenstone2.81rc Installer	
Installation progress	
Show Details Installing Core System	c
Looking For Previous Installation	
 Installing Core System 	
Installing Start Menu Shortcuts	
Installing ImageMagick	
Installing Ghostscript	
Cancel A Back Mistall	





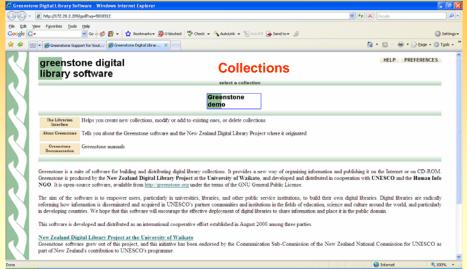


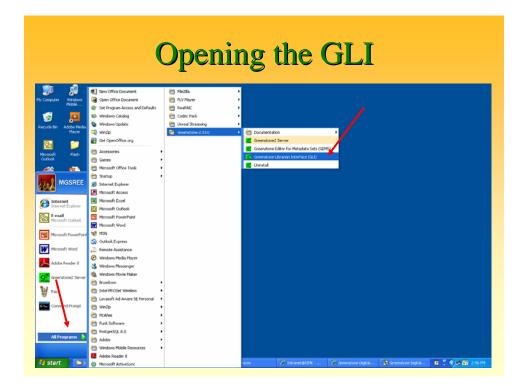


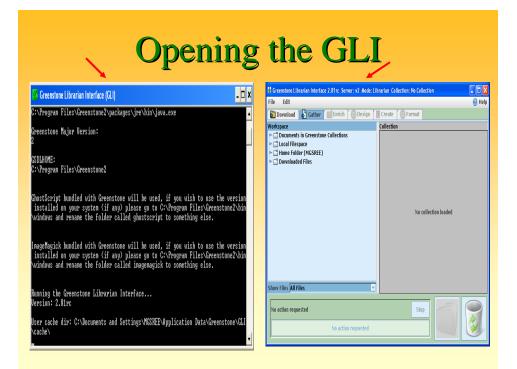


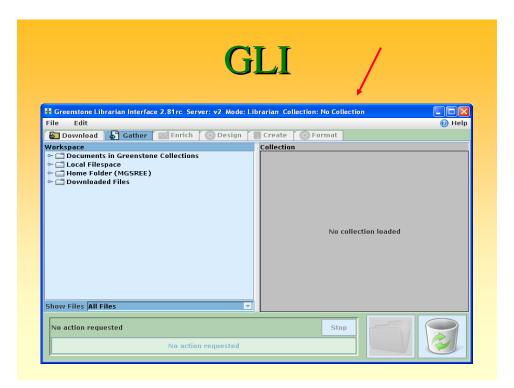


Opening Greenstone on Browser Greenstone Digital Library









GLI Functions Establish new collection (or work on old) Select files to include in collection (Gather) Enrich files with metadata (Enrich) Select Plugins, Indexes, Classifiers (Design) Build Collection (Create) Format and Control Display (Format) Customize Appearance Preview Collection

Collection Building...

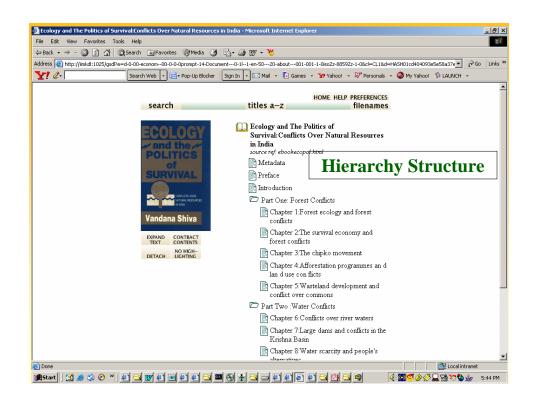
- Greenstone used to have three modes of collection building, viz., Command Line, Web Interface and the GLI (Greenstone Librarian Interface)
- Progressing with version 2.4x., the GLI got strengthened as well as popularized
- Web Interface mode has been withdrawn temporarily.
- The GLI based collection building is quite easy and simple a method.
- Collection developers can activate the GLI software and use the 'Gather', 'Enrich', 'Design', 'Format' and 'Create' panel for making collection

Customization

- Greenstone is specifically designed to be highly extensible and customizable.
- New document and metadata formats are accommodated by writing "plugins" (in Perl).
- > Analogously, new metadata browsing structures can be implemented by writing "classifiers."
- > The user interface look-and-feel can be altered using "macros" written in a simple macro language.
- > A Corba protocol allows agents (e.g. in Java) to use all the facilities associated with document collections.
- > Finally, the source code, in C++ and Perl, is available and accessible for modification

Customizing with macros

- Let you customize presentation
- Present pages in different languages
- Print variables into the page text (e.g. number of search hits)
- Macro files
 - stored in greenstone2/macros folder
 - each file defines one or more "packages" (A "package" is a group of macros)
 - loaded on startup (note difference between Local and Web Library)
 - listed in <u>etc/main.cfg</u>
- Collection-specific macros
 - Stored in greenstone2/collect/mycol/macros/extra.dm
 - Or include argument [c=collectionname] for each macro



Collection configuration

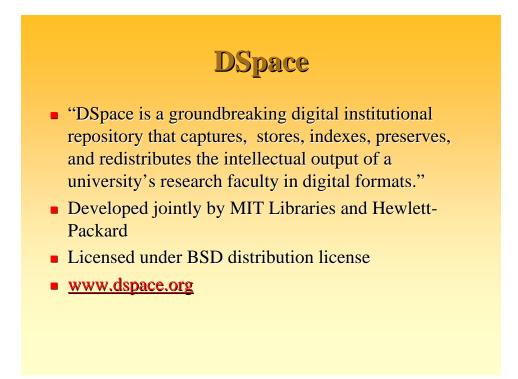
- Collection configuration file determines content conversion, extraction and building of indexes and browsing structures
 - indexes, classifiers, plugins
- Presentation of search/browse results and collection interface is determined by "format" strings and "macros"



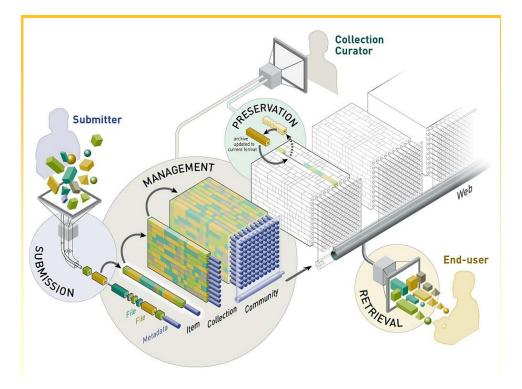


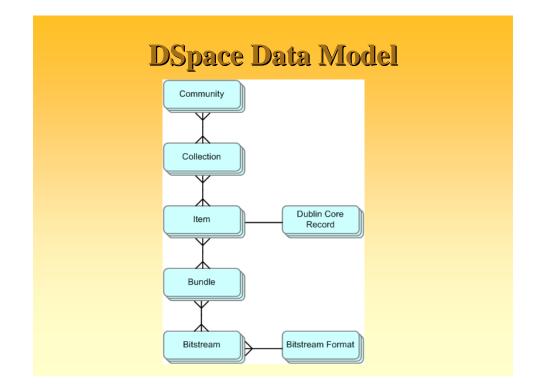


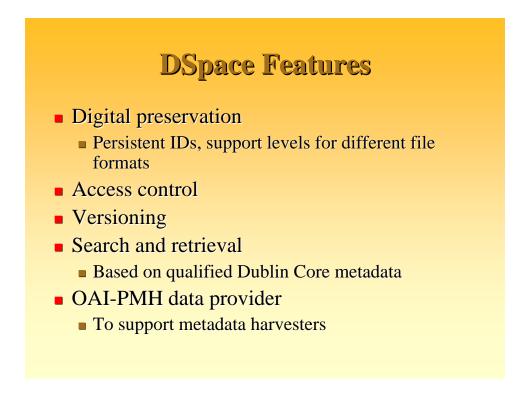
	h non
	DSpace
Elle Edit View Go D	n (Olders University) Homes Novilla Finder (9)
00.4	
$\bigcirc \bigcirc \bigcirc \bigcirc$	😧 🛜 📔 http://perver11 paradigm ac ok 8000it/pace/dtopace.adm/nl
📄 SUSE LINUX 🔒	Entertainment 🚔 News 🚔 Internet Search 🚔 Reference 🚔 Maps and Diffections 🚔 Shopping 🚔 People and Companies
T	
Sn	
Dabo	About D Space Software
Search DSpace	DSpace at Paradigm (Celord University) >
Advanced learch	DSpace is Live
(i) thins	
	Welcome to our digital repository of My University research! More exciting news to appear here.
Browse	NUME OF THE REAL OF ADDRESS IN THE
Communities <u>B.Cothectees</u>	
() Inter	Search
 Authors 	Enter serve text in the law below to search DS pace.
(C) Du Com	Go
() By Date	
Sign on to:	
	Communities in DSpace
Sign on to:	





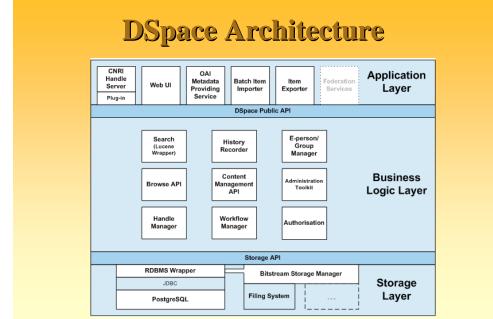






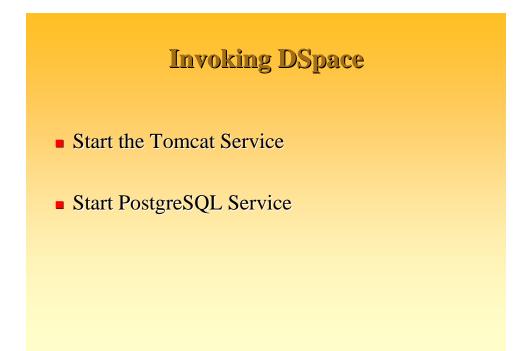
DSpace Technology

- OS: Unix or Linux
- Written in Java
- PostgreSQL relational database
- Provides complete Web user interface, but Java APIs available

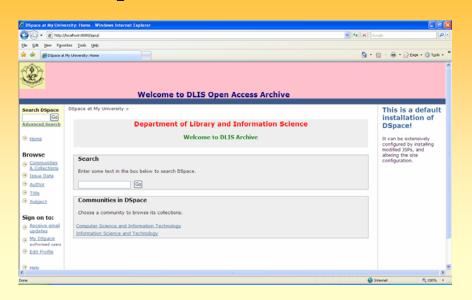


DSpace Software / Utilities

- 1. Java SDK 1.4.2 http://java.sun.com/javase/downloads/index_jdk5.jsp
- 2. Apache Maven 2.0.54 http://maven.apache.org/download.html
- 3. Tomcat 5.0.28 http://tomcat.apache.org/download-55.cgi
- 4. **Apache Ant 1.6.5** http://ant.apache.org/bindownload.cgi
- 5. **PostgreSQL 8.0.2** http://mirror.tomato.it/ftp/pub/PostgreSQL/binary/v8.0. 2/win32/
- 6. **DSpace 1.5x / 2.x** http://downloads.sourceforge.net/dspace/dspace-1.5.0release.zip



DSpace JSP User Interface



DSpace XML User Interface



ost:6080/jspul	🗸 🏘 🗙 Google	
	Coope	
Tools Reb	A. D. A.	Page + 🙆 Took
Welcome to DLIS Open Access Archive		
· · · ·	installa	a defaul ation of
Welcome to DLIS Archive	It can be e configured l	xtensively by installing
Search	altering the	site
Enter some text in the box below to search DSpace.		
Go		
Communities in DSpace		
Choose a community to browse its collections.		
	pace at My University > Department of Library and Information Science Welcome to DLIS Archive Search Enter some text in the box below to search DSpace. Communities in DSpace	Welcome to DLIS Open Access Archive Department of Library and Information Science Welcome to DLIS Archive This is Installa DSpace Search Configuration Enter some text in the box below to search DSpace. Configuration Communities in DSpace Communities in DSpace

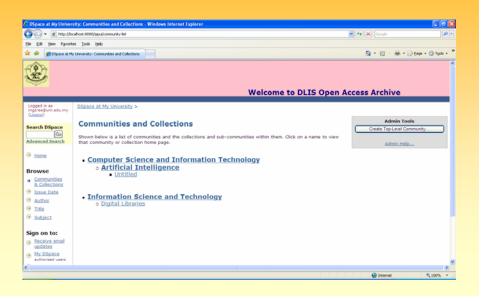


MyDSpace Login

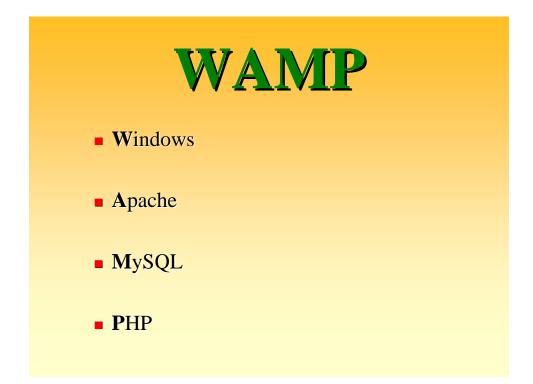
- (2) + (2) http://k	ocahost.8000/jspu/password-logn	Sector Sector	9
the Edit year Faron	tes jook jep		
🕈 🕸 💓 D'Space at P	Hy University: Log In	💁 • 📾 · 🖨 • 🗄	Enge • 🔘 Tools •
÷	Welcome to DLIS Open Access Archive		
Log In to D	OSpace	Helpost	
	New user? Click here to register.		
	Please enter your e-mail address and password into the form below.		
	E-mail Address: mgsree@um.edu.my		
	Password: ······		
	Log In		
	Have you forgothen your password?		
W3C LO	DSpace Software Copyright © 2002-2007 MII and Hewistt-Packard - Eeedback		
			>
		🕒 Internet	€ 100% ·

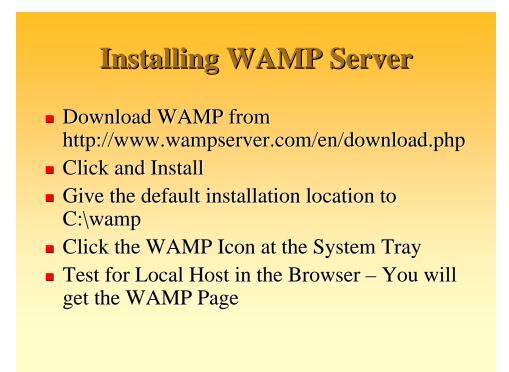
	MyDSpace	
⁵ D5pace at My Unive	rsity: My DSpace - Windows Internet Explorer	EFX
- (a) hetp://	xahot:000)jputnydpace	P -
Die Edt Vew Favor	tes Jook jap	
ar 🕼 💓 D'Space at I	ty University: My DSpace	🖶 • 🔂 Enge • 🔘 Tools • '
mgsreedum.edu.my	DSpace.at.My.University.>	
mgirestum.edu.my (Loosut) Search DSpace Ge	DSpace at My Utiversity > My DSpace: M.G. Sreekumar Stan a New Submission Vew Accepted Submission	Help
Search DSpace Go Advanced Search	My DSpace: M.G. Sreekumar	::::::::::::::::::::::::::::::::::::::
mgireedum.edu.my (Lossod) Search DSpace Ge Advanced Search Thoma	My DSpace: M.G. Sreekumar Stat a New Submission	::::::::::::::::::::::::::::::::::::::
mgiresdum.edu.my (Lasact) Search DSpace Ga Advanced Search Home Browse Communities	My DSpace: M.G. Sreekumar Stat a New Submission View Accepted Submissions Size Your Subscriptions Size Your Subscriptions	***iz
mgireeSum.edu.my (Lasau) Search DSpace (a) Advanced Search Home Browse <u>Conneunities</u> & Collections	My DSpace: M.G. Sreekumar Stat a New Submission View Accepted Submissions Size: Your Subscriptions Unfinished Submissions This section is for use in the continued authoring of your document.	Hiliana
mgireeSum.edu.my (Jaaau) Search DSpace Ge Advanced Search tioms tioms Browse Communities Controlines Controlines Scotter.DSpace Search DSpace Ge Advanced Search	My DSpace: M.G. Sreekumar Stat a New Submission Vew Accepted Submissions Statistic Submissions See Your Subscriptions	998i
mgireeBum.edu.my (Loasu2) Search DSpace 69 Advanced Search 6 Home Browse 6 Communications 7 Communications 7	My DSpace: M.G. Sreekumar Stat a New Submission View Accepted Submissions Size: Your Subscriptions Unfinished Submissions This section is for use in the continued authoring of your document.	
mgireeBum.edu.my (Loasu2) Search DSpace 69 Advanced Search 6 Home Browse 6 Communications 7 Communications 7	My DSpace: M.G. Sreekumar Stat a New Submission Vew Accepted Submissions Statistic Submissions See Your Subscriptions	900)
mgireegun.edu.my (usaad) Search DSpace (Ge Autoanted Search Thomas Browse Geometrics (Scottectoria Sister Date Sister Date (State Sister Date (State State) Sister Date (State State)	My DSpace: M.G. Sreekumar Stat a New Submission Vew Accepted Submissions Statistic Submissions Statistic Submissions	998)
mgineselum.ndu.my (Jacand) Search DSpace (Ge) Althounds Bearch Thom Browse Geometrics Geometrics Author Talse Subjection Sign on to: geocometrics Sign on to:	My DSpace: M.G. Sreekumar Stat a New Submission Vew Accepted Submissions Statistic Submissions Statistic Submissions	
régisere Juna de la my (Jacana) Search Dispace (De Advanced Search (De Advanced Search (De Advanced Search (De (De (De (De)	My DSpace: M.G. Sreekumar Stat a New Submission Vew Accepted Submissions Statistic Submissions Statistic Submissions	
mgirespunction my (unand) Search DSpace (Ge Advanced Search # Inome # Inome # Communities & Contextons # Sociections # Insue # Authot # Insue # Authot # Insue # Subject Sign on to:	My DSpace: M.G. Sreekumar Stat a New Submission Vew Accepted Submissions Statistic Submissions Statistic Submissions	1980

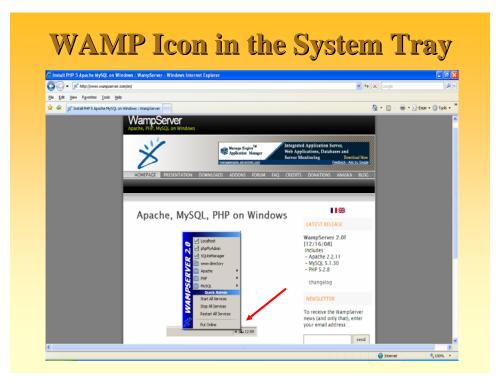
Communities and Collections



DSpace at My Univers	ity: Edit Community - Windows Internet Explorer		
🔊 🗣 🔊 http://loci	ahost:8000/jspu/dspace-admin/edit-communities		(4) X Google
	s Iools Help		
🔗 🌈 DSpace at My	University: Edit Community		🏠 • 🖾 · 📾 • 🕞 Bage • 🎲 Tgols
Communities/	DSpace at My University >		Open Access Archive
	Administer >		
E-people Groups			Help
E-people Groups Items	Administr > Create Community		Helpass
E-people Groups Items Metadata Registry	Administer > Create Community Name:		Helpus
E-people Groups Items Metadata	Administer > Create Community Name: short Description		<u>Help</u>
E-people Groups Items Metadata Registry Bitstream Format Registry Workfloxx	Administer > Create Community Name:	A	titizee
Enercole Groups trems Metadata Registry Bitstream Format Registry Workflox Authorization	Administer > Create Community Name: short Description		Hitipus
Eneropie Groups Groups Items Metadata Registry Bitstream Format Registry Workflow Authorization Edit News	Administer > Create Community Name: short Description		titilizaa.
E-people Groups Items Metadata Regatry Bistream Format Registry Workflow Authorization Edit News Edit Default	Administer > Create Community Name: short Description	a 2	Malipue.
Elescole Ecosps Groups Items Metadata Registry Metadata Registry Workflow Sathered Authorization Edit News Edit Default License Supervisors	Admoster > Create Community Name: Short Description Introductory text (HTML):	n 2	Malinus
Elescole Ecosps Groups Items Metadata Registry Metadata Registry Workflow Sathered Authorization Edit News Edit Default License Supervisors	Admoster > Create Community Name: Short Description Introductory text (HTML):	л и л	titipus
Elinsople Ecoups Ecoups Items Metadata Registry Workflow Workflow Submitted Edit Default License Supervisors Statistics	Admoster > Create Community Name: Short Description Introductory text (HTML):		Millions
Eneropie Groups Groups Items Metadata Registry Bitstream Format Registry Workflow Authorization Edst.News Edst.News	Admoster > Create Community Name: Short Description Introductory text (HTML): Copyright text (plain text):		Mitigana.







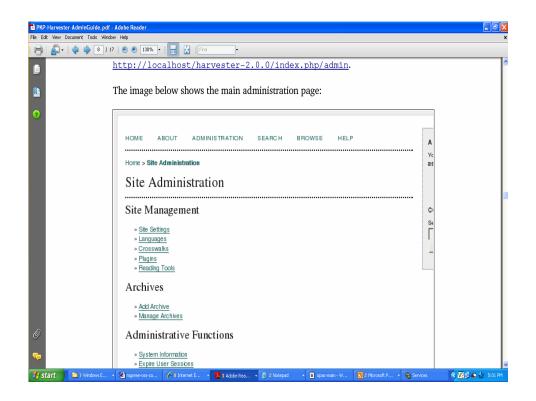


Installing PKP Harvester

- Download PKP Harvester from http://pkp.sfu.ca/?q=harvester
- Unzip the .gz and the .tar files to C:\wamp\www\harvester2
- Open the file index.php in the Web Browser http://localhost/harvester2/index.php
- Give the necessary parameters/data as required
- Click on "Install Harvester"
- Check for successful installation/debug
- The OAI Harvester is now available at http://localhost/harvester2/

Adding and Managing Archives

- Download PKP Harvester from http://pkp.sfu.ca/?q=harvester
- Unzip the .gz and the .tar files to C:\wamp\www\harvester2
- Open the file index.php in the Web Browser http://localhost/harvester2/index.php
- Give the necessary parameters/data as required
- Click on "Install Harvester"
- Check for successful installation/debug
- The OAI Harvester is now available at http://localhost/harvester2/



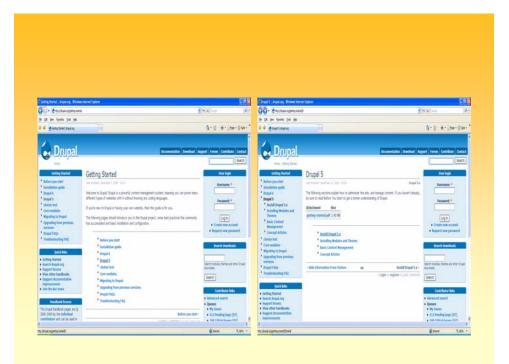
Edt Vew Favorb	er Toop Fallo			
🔗 🖉 Harvester 2		🕅 • 🔝 - 🖶 • 🕞 Bage • 🔘 Tgols •		
HOME AB	out search browse help	Search		
Username Password	Remember my username and password	FONT SIZE		
2005-2007 (Nec Smecher and John Willinsky			

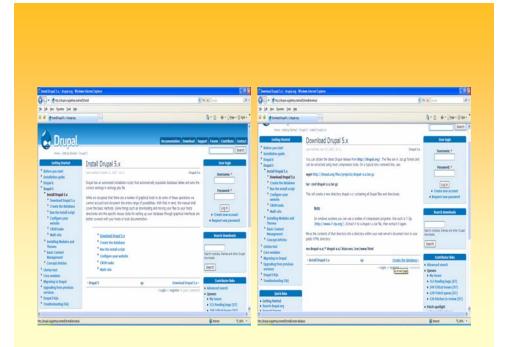
Drupal Content Management System



www.drupal.org







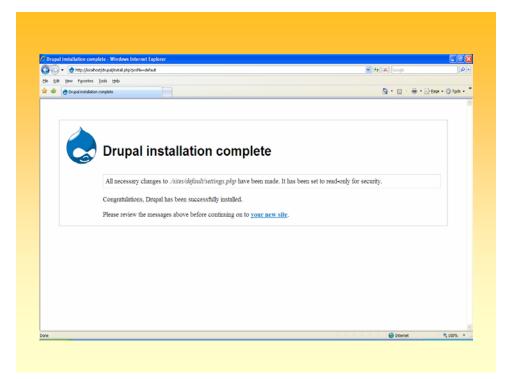
nde for database) drapsLorg . With	H Monet Labora	585	Calaber (leaders) physi	ykleis 11.1 - Weine Interne Explorer	
· Omitesenismesent	htið veið statar 🕴	9.4 mp Pr	00-2m3abet	(poster)	1 4 × 1+2
18 pe fonte 14 pe			State in the second	19	
Contraction (Appling		8-0-8-3te-0te-	章章 Australiation	Artistic 112	8-0 8:0te-01
		pet Form Contribute Contract	2000 • 0014)	Bontene 310. Ølans Steinten Schwes Bingten Bingert	
Getting Started	Create the database	Dier liefe	taneste2(2) inturnation scheme (3)	Actions	WySQL
* Belan per start * Decalation puble * Dropal 5 * Decalation puble * Decalation public 5 * Sector Dropal 5.x * Decenical Dropal 5.x	servedne zomer 2000 2000 med kan served ander 2000 beged for Degel region secon to statution in the installet. Your distatus served verter sefector polings in the Degel. Additional information Andra polings, are termination to control industria and the control of low walking in DEGAL, medicat for MAQU in XEGAL application herep4QU.	Persent *	• myst (2) Pene skiet a taktare	BySQL locahost SCean rev datase 0 Introl Coltan H Crate BisSQL convetor calater (dr. previ jo H 0	Biover scalarst location va 1079) Biover ensure 11 34 community-by • Protocol ensure 11 • Uner configurations (DisS2), charter (UT-8 (Incode (aff))
* Orate the database * Orate database	* Create delabore with MyROL	Log n • Create new account		Interface	lieb server
ulli NyKD. * Cristie database ulli Postgestiji. * Racifie instal script * Cooligan yaar ustado	Contractionalistics and market Contractionalistics with Pertypeligy Construct database with Pergraphics Construct database with Pergraphic Construct database with Pergraphics Constr	Report on proceed South Investigation		Flaspar & Ergin	 Apachet2111 (Biol2):PP518 BiSQL chert sersion 5051a PPP extension mystell
* CROR Losio		Sect roble, here at the Day		* Fattace IDS	phpWyAdmin
* Roll-Site * Socialing Rechains and Therens * Basic Cantent Recognomet * Concept Attices distan Inst Care metalen Regradiog to Stepsi Summalian Versenium		Serias Secional Secional Alternational Secional Alternational Secional Alternational Secional Secional Secional Secional Secional Secional Sectors Alternational Secional Sectors (2017) Alternational Secional Sectors (2017) Alternational Se			Instructional 111 Occurrente One Occurrente One Occurrente 'Darptog(Denend(Int) phpMuAccel

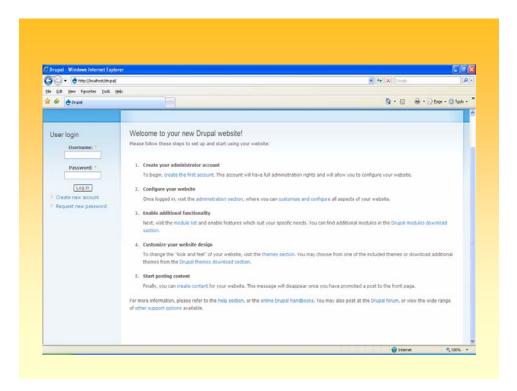
Database Created

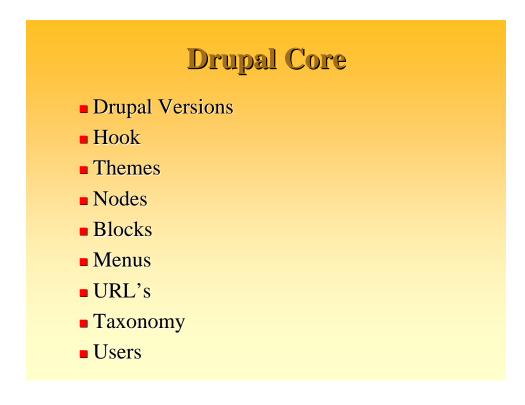
and the state of t	phpMyAdmin 3.1.1 - Windows Internet Explorer			
🔆 🕢 • 🖾 http://kocahost/drug		🖉 🏟 🗶 Groce	P -	
le Edit Vew Favorites Isols Google C-	1940 💌 Go = 🕼 📮 + 😭 Boolenarius - 🔯 Oblocked 💝 Check + 💊 Autoriti - 😒 Autoriti 🔒 Sendito - 🥥		G Settings -	
🖌 🐼 д localhost / localhost / dr	upal phpMyAdnin 3.1.1		📾 • 🔂 Exce • 🔘 Tools •	
phpHyAdmin	😰 Server: localhost 🕨 💩 Database: drupal			
	g Structure SQL / Search @Query @Export @Import %Operations @Privilege	S Drop		
	✓ Database drupal has been created			
Database trupal	CREATE DATABASE "Houpel" :			
		1	Edt] [Create PHP Code]	
rupal (0)			the second second	
lo tables found in database	No tables found in database.			
	Name Number of fields			
			Go	
p://kxahost/phpmyadmin/db_structure	n.php?db=d+upa88cskan==837876e=43a0052877e49dda65861661c	🕒 Internet	€ 100% ·	

Give "Install.php" at Localhost

- Attal	locahostjórupajírstal pho/torólia-delask	4 4 × 6000	9
	vites jools 1980		
a de para ren		Q · D · # ·	Bage - C Tgols -
Channel		the test of the	
	Database configuration		
	Basic options		
	To set up your Drupal database, enter the following information.		
	Database type: *		
	⊚ mysql		
	O mysqli		
	The type of database your Drupal data will be stored in.		
	Database name: *		
	dupal		
	The name of the database your Drupal data will be stored in. It must exist on your server before Drupal	can be installed.	
	Database username: *		
	mgsree		
	Database password:		
	Advanced options Save configuration		
	Dava couldnariou	😜 Internet	\$ 100% ·

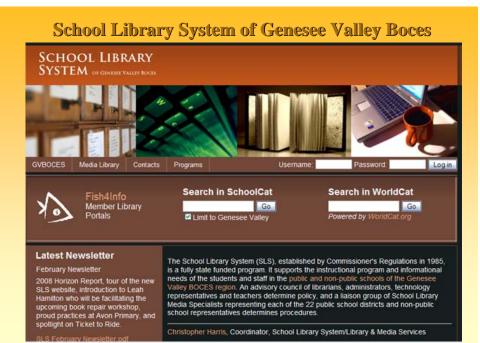












http://sls.gvboces.org

Hamline University Law Library



http://law.hamline.edu/library/lawlibrary.html

SWON Libraries

Event Calendar

Driving Directions

Training Partners

Discussion Forums

Membership Levels

Library Employment

For Members

Technology

Media Catalog

Online Projects

Search

RSS Feeds

News Items

Employment Photos

Shared Storage

April 4th

Solutions: What Are

Events

What is RSS7

SouthWest Ohio and Neighboring Libraries is a cooperative of area libraries organized to promote library services among and through member institutions. SWON Libraries consists of academic, public, school and special libraries in Southwest Ohio and Northern Kentucky.

SWON Libraries Brings Bugs to the Region

Everyone was a little bit buggy last week in the SWON Libraries Region. With the help of the State Library of Ohio, SWON Groups & Committees Libraries hosted three workshops for children's librarians with the theme: Catch the Reading Bug @ Your Library. workshops are intended to share ideas for the annual Summer Reading programs that will be held by public libraries throughout the state. Resources

Workshops were held in West Chester, London, and Eaton. 101 librarians participated in the day-long events. Librarian

presenters shared book and activity suggestions for programs and storytime sessions for four age groups. Recipes for edible snacks were shared and craft demonstrations took place. Several performers provided previews of their offerings from summer reading events including a ventriloquist, magician, and musician

Each day concluded with a die cutting party where the librarians Each day concluded with a die cutting party where the university were invited to cut out their own "bugs" to use for their events with a large variety of dies stronged by SWON Libraries.

The

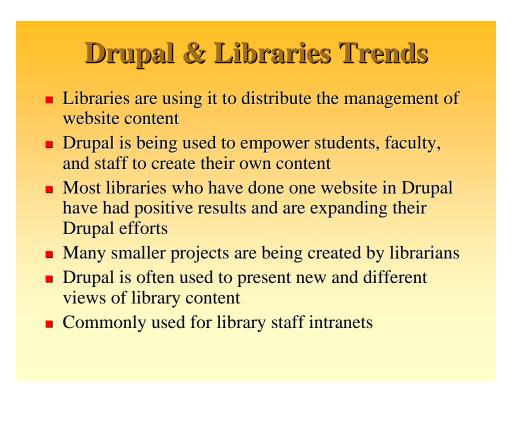


Covington April 7th Ohio Ready to Read Basic Training in

Group Meeting in

Wilmington More Events »

http://www.swonlibraries.org



Five Modules Librarians Should Know About

1. Bibliography Module

- Manage & display lists of scholarly publications
- bibTex and Endnote Import/Export
- <u>http://drupal.org/project/biblio</u>

2. Marc Record

- Creates a library catalog by importing Marc records
- <u>http://drupal.org/project/marc</u>
- 3. Book Review
 - Publish book reviews
 - Fields for unlimited authors, booktitle, cover image, publisher, copyright, isbn, # of pages, price, synopsis, table of contents and the review text
 - <u>http://drupal.org/project/bookreview</u>

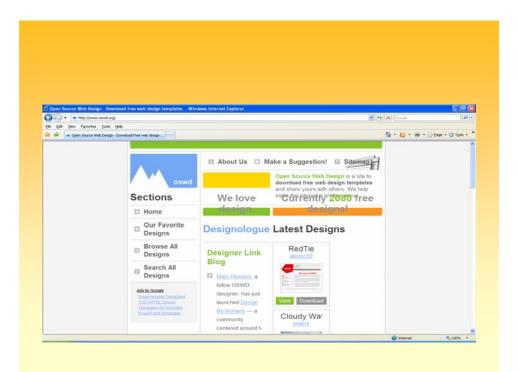
Five Modules Librarians Should Know About

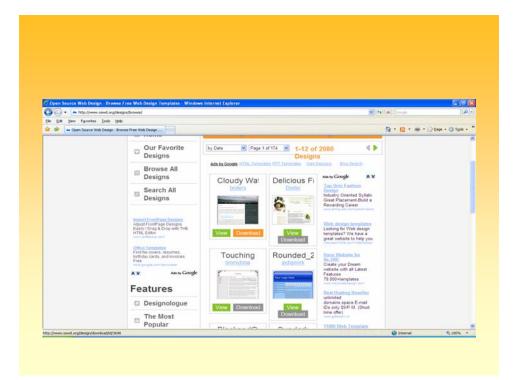
- 4. Millennium
 - Searches Innovative Interfaces' Millennium WebOpac for MARC records
 - Creates a Drupal-based library catalog
 - <u>http://drupal.org/project/millennium</u>
- 5. Z39.50 Search
 - Searches the world's libraries and presents results
 - <u>http://drupal.org/project/z3950</u>

Open Web Design

🕒 🕢 🔹 🖉 http://www.op	erwebdesign.org/		🥶 fg	× Geogle	P
Ele Edit Vew Favorites]	(ools tjelp				
😽 🔷 🕜 Open Web Design -	Download Free Web Design Templ			⊕ • ⊕ • ⊕ • ⊕	ige • 🔘 Tools •
			Looking for premium desi	gns? Leyoutliank: 1300 De	aligns for \$2911
Open WEb U	15100				
Remot FAQ About Us					
Design Related	partering	Latest Designs			
+ Browse Designs	Open Web Design is a community of designers and site or	eners sharing free web design templ	lates as well as web design	Aecently Approved Desig	204
· Browse Designs	information. Helping to make the internet a prettier place!			Dating	comdesion
+ Search Designs	Oldesigns posted this week,				D/Ls 1315
+ Am I Design or Not?	3573 designa totali	-	Type W3C		
10.2		Man	1MG yes		
Nest Popular Designs	Helping Web developers become business developers. Verio HPS	Educided Add to Favorites	CSS yes		
Peet Design Contests	the design and development that power your customers' busin eliminating the distractions of server management. Experts mai			Entert	tramet
- Designs in Action	\$348.95/month. Click here for more information.				comdesion
+ Link to us!					D/Ls 2199 Type
- Link of Let	Topic	Replies	Last Reply	Ves	W3C ING yes
 User Home Page 	mhat.urparam.do.vou.use?	37	12/20/08	Download	CSS yes
+ Perum	Sunny, animations	7	12/19/08	Add to Payorites	
A DESTRUCT	prostore templates	0	12/19/08	by dat	comdesian
PREMIUM	Goodle Rackings	14	12/17/08	1. 1.29	D/Ls 843
RESOURCES	Accessibility User Testing / Evaluation	5	12/17/08	date frances	Type W3C
Flash Templates	Looking for a powerful Web Browser	14	12/17/08	Vita Download	ING yes
and the second se	New Web Design Contest: Prize 2000 Cash!			Add to Favorites	CSS yes
Web Templates	Posted by shay on 01/15/2008 @ 07/20am			Kitche Ing And	comdesion
CSS Temptates		e for this contest is "Spring Design"	Deadline for entries will be		D/Ls 092
and the second	Please see the contest information page for details. Them				Type
CSS Templates	Please see the <u>contest information page</u> for details. Them Sunday, Tuesday 1st April. The judges will be <u>Shay</u> , and Ou		amples of submissions, see		Marker 1









DL - Hardships

- Copyright Issues
- Technology Complexities
- Infrastructure Issues
- Publications/Formats Diverse Datastreams
- Digital Objects/Formats Multiple
- Publishers' Policies Stringent, Inconsistent

Major Tasks

- Content identification (internal / external)
- Content Creation
- Content Collation/Signposts
- Organisation
- Updation
- Retrieval / Dissemination
- User Training
- Archiving

