



Managing Digital Collections with Greenstone Digital Library Software

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Outline

- Digital Collections
- Digital Library
- Open Source Software
- Greenstone Digital Library Software (GSDL)
- Installation of GSDL
- Using Librarian Interface (GLI)
- Using User Interface
- Practical examples



Electronic Document

- When the content (text, picture, audio-video etc.) is created or stored electronically.
- An Electronic/Digital Document
 - Unit of work or Complete work
 - Electronically stored book is Electronic Document
 - Each chapter is Electronic Document
 - A picture embedded in the chapter



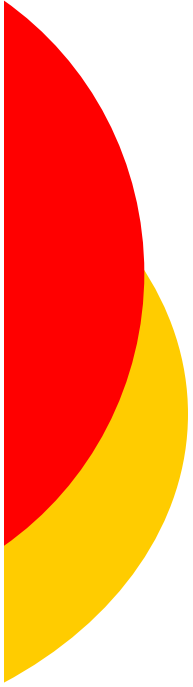
Digital Collections

- Print documents as electronic documents
- Existing and future electronic documents
- Electronic document format
- Electronic Collections



Digitization

- Hard copies into electronic copies
 - Preserving the hard copies
 - Accessing the hardcopies electronically
 - Reusing the hard copies electronically



Electronic Document Format

- Format adds special characteristics to the Electronic Document/Digital Document
 - Identify / Distinguish
 - Share
 - Web enabled
 - Convert
 - Compress



Electronic Document Format

- Text format

- Applicable to documents where content is largely textual.

- Image format

- Used to create/store the digital image of text pages, photographs etc.

- Audio & Video format

- Used for capturing , storing & processing audio and video

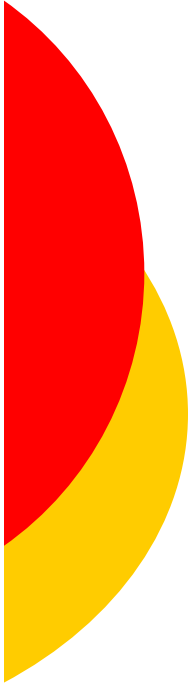
- Animation format



Electronic Document Format

Text format

- Simple Text File Format (TXT)
- Rich Text Format (RTF)
- Portable Document Format (PDF)
- Hypertext Markup Language (HTML)
- Microsoft Word Document (DOC)



Electronic Document Format

Image format

- Graphics Interchange Format (GIF)
- Joint Photographers Expert Group (JPEG)
- Portable Network Graphics (PNG)
- Tagged Image File Format (TIFF)
- Bit Map Picture (BMP)



Electronic Document Format

Audio format

- Wave (Wav)
- Musical Instrument Digital Interface (MIDI)
- Real Audio (RA)
- Motion Picture Experts Group (MPEG)
Audio Layer 3 (Mp3)/(Mp4)
- Windows Media Audio (WMA)



Electronic Document Format

Video format

- Motion Picture Experts Group (MPEG)
- Real Video (RA/RAM)
- Audio Video Interleave (AVI)
- Windows Media Video (WMV)
- QuickTime (MOV)
- Flash Video (FLV)



Electronic Document Format

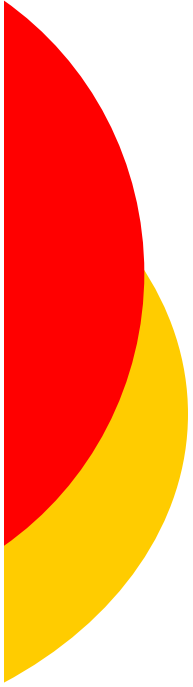
Animated format

- Graphics Interchange Format (GIF)
- Audio Video Interleave (AVI)
- Moving Picture Experts Group (MPEG)
- Shockwave Flash (SWF)
- Quick Time (QT)



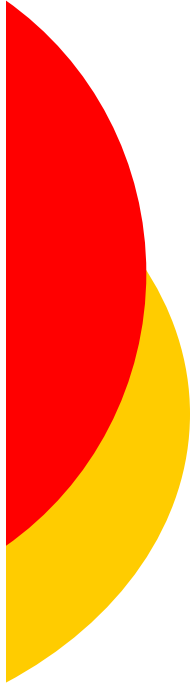
Digital Collections

- Existing electronic documents
- Future electronic documents



Managing Electronic Collections

- Electronic collections
- Electronic format
- Indexing & Retrieval
- Storage
- Access
- Delivery
- Archive



Digital Library

“A digital library is an organised and focused collection of digital objects, including text, images, video and audio, along with methods for access and retrieval, and for selection, creation, organization, maintenance and sharing of the collection”



Digital Library: Key Components

- Selection and Acquisition
- Organization of documents
- Indexing and storage
- Search and retrieval
- Access and delivery
- Compliance to Standards



Digital Library Software

- A key requirement for development and deployment
 - Commercial Software
 - Open Source Software (OSS)



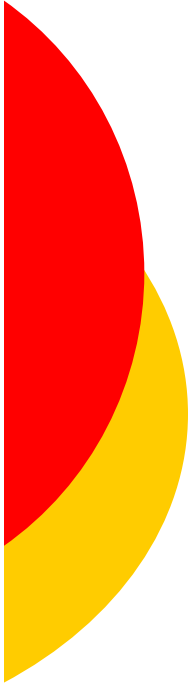
Open Source Software

- Ability to run, change, and improve the software
- Redistribute it in modified or unmodified form
- Collaborative software method
- Source Code is made accessible
- Driver of innovation



Open Source Software

- Proprietary Software
 - development behind walls
 - Source Code
 - Vendor
 - Reliability
 - Minimal freedom to customize
 - License fee



Open Source Software

- Source Code developed over the Internet (Public View)
- Reliability -Peer Review
- No dependency on Vendor
- No license fee
- Flexibility to customize
- User-centric development



OSS Applications

- Operating System
 - Linux
- Application Software
 - Desktop : OpenOffice
 - Web Browser: Firefox
- Many other applications...

Open Source Software

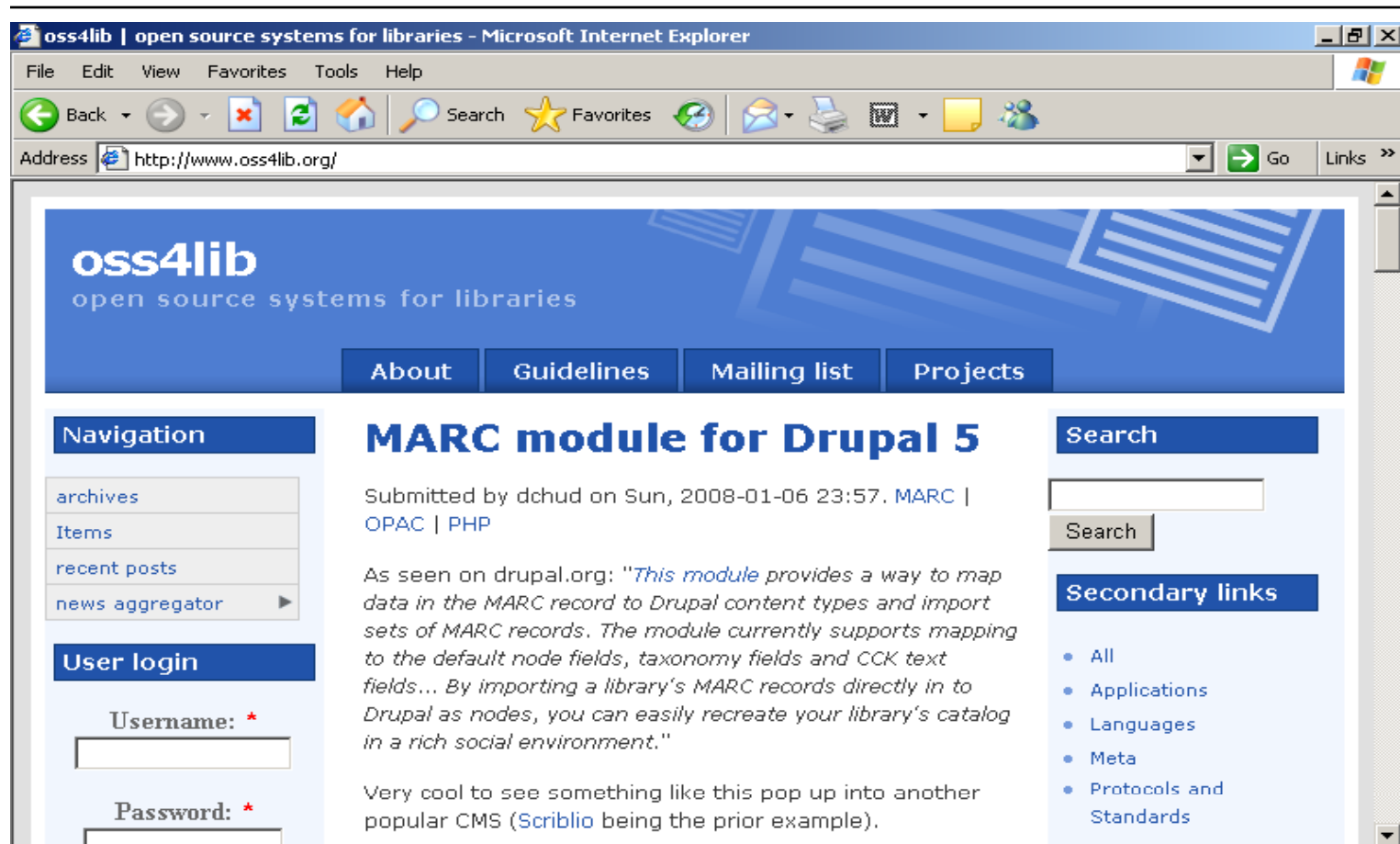




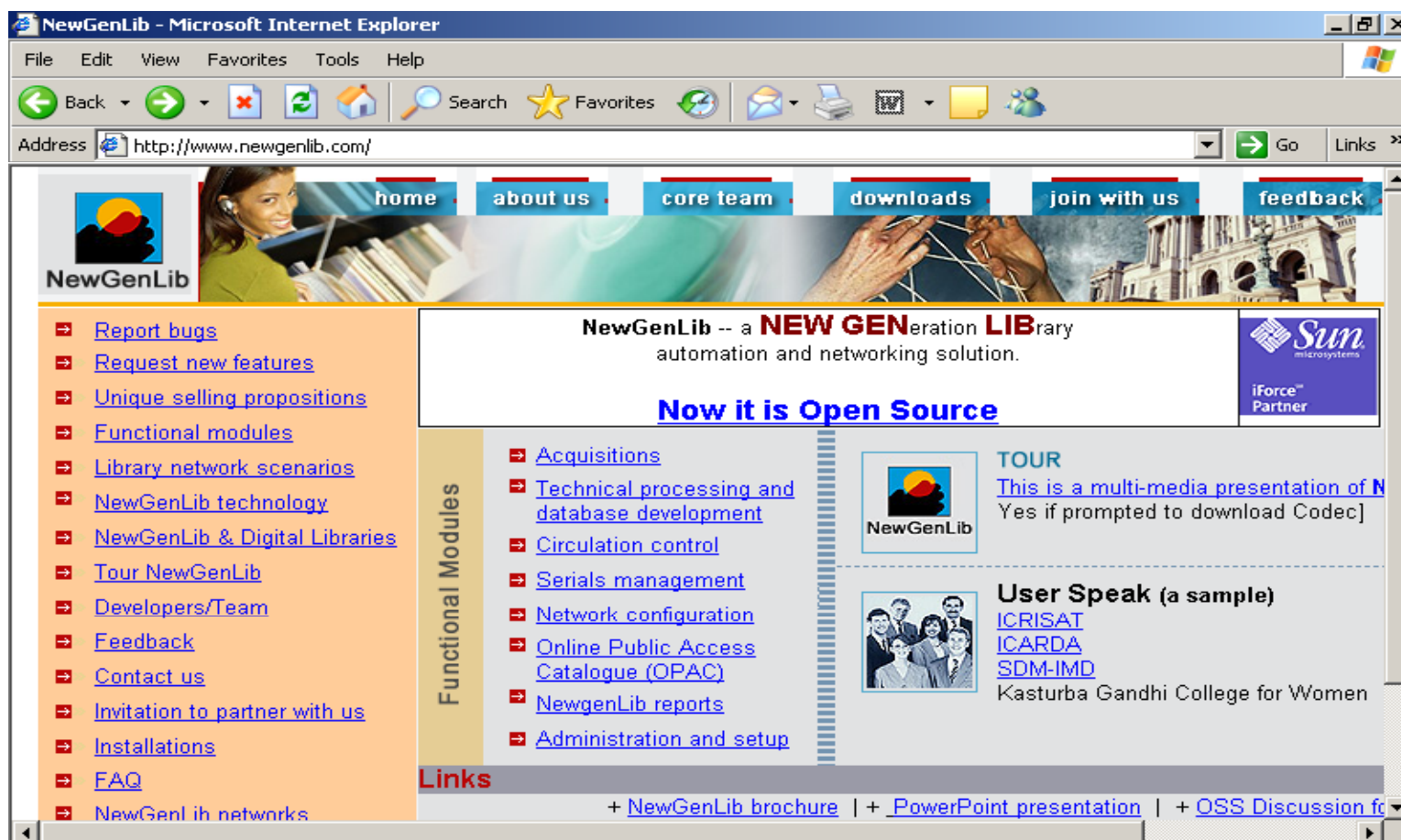
OSS for Libraries

- Database Management Systems
- Library Management Systems
- Digital Library Software
- Institutional Repository Software
- Content Management Software
- Many other applications...

Open Source Software



Open Source Software



Open Source Software

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search koha.org

Go



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[DOWNLOAD](#)

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[COMMUNITY](#)

koha v.2.2

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.

> [read more](#)

> [demo](#)

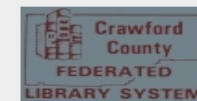
> [download](#)



New Koha Extensions Manager Site Released

The new contribs site is a place where you can find plugins, like template sets, browser plugins, migration tools and command line utilities for Koha.

Check it out at <http://contribs.koha.org>



The Koha community welcomes Crawford County Federated Library System, USA. [visit CCFLS](#)

Latest News

- > [Koha 2.2.9 Released](#)
21 May 2007
- > [New Extensions Manager Website Launched](#)
17 Jan 2007
- > [Koha 2.2.7 with new z39.50 client released](#)
27 Nov 2006

[more news](#)

Quick Links

- > [Documentation](#)
- > [Development Wiki](#)
- > [Discussions](#)
- > [Koha for Windows](#)
- > [Bugzilla](#)
- > [Koha at Savannah](#)
- > [ViewCVS](#)
- > [Chat Information](#)



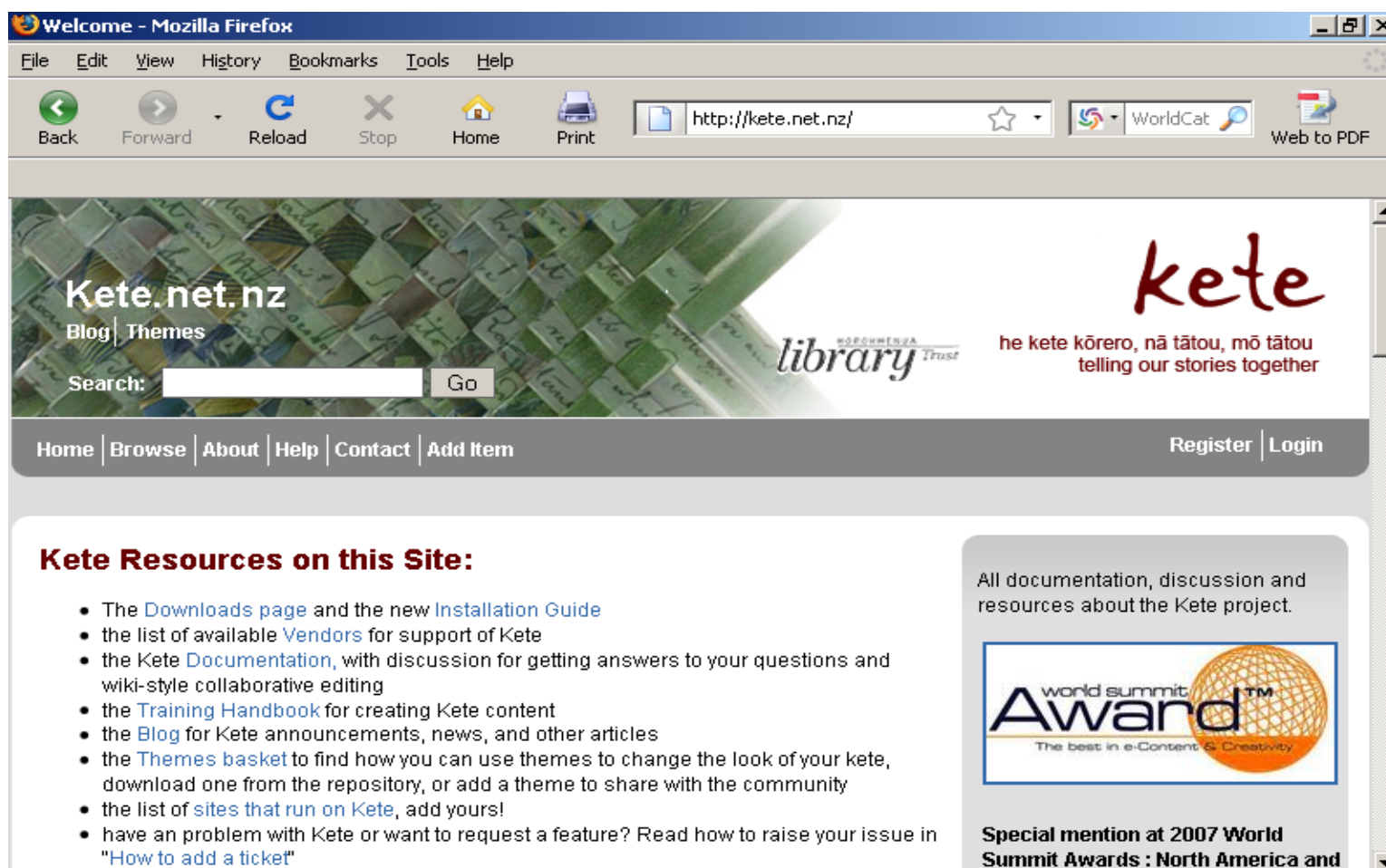
Digital Library Software

- Greenstone Digital Library Software
www.greenstone.org
- Kete
<http://kete.net.nz>

Greenstone Digital Library Software



Kete Digital Library Software



The screenshot shows a Mozilla Firefox browser window displaying the Kete Digital Library Software website. The browser's address bar shows the URL <http://kete.net.nz/>. The website features a header with the Kete logo, a search bar, and navigation links. The main content area lists resources available on the site, including a list of vendors, documentation, a training handbook, a blog, a themes basket, and a list of sites that run on Kete. A sidebar on the right highlights the website's recognition as a Special mention at the 2007 World Summit Awards.

Welcome - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Back Forward Reload Stop Home Print <http://kete.net.nz/> WorldCat Web to PDF

Kete.net.nz
Blog Themes
Search: Go

library

he kete kōrero, nā tātou, mō tātou
telling our stories together

Home Browse About Help Contact Add Item Register Login

Kete Resources on this Site:

- The [Downloads page](#) and the new [Installation Guide](#)
- the list of available [Vendors](#) for support of Kete
- the Kete [Documentation](#), with discussion for getting answers to your questions and wiki-style collaborative editing
- the [Training Handbook](#) for creating Kete content
- the [Blog](#) for Kete announcements, news, and other articles
- the [Themes basket](#) to find how you can use themes to change the look of your kete, download one from the repository, or add a theme to share with the community
- the list of [sites that run on Kete](#), add yours!
- have an problem with Kete or want to request a feature? Read how to raise your issue in "[How to add a ticket](#)"

All documentation, discussion and resources about the Kete project.

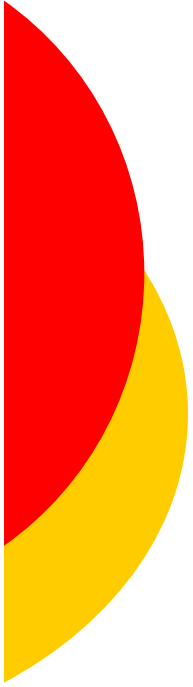
world summit
AwardTM
The best in e-Content & Creativity

Special mention at 2007 World Summit Awards : North America and



Greenstone Digital Library Software (GSDL)

- Open Source Software promoted by New Zealand Digital Library Project
- Produced at the University of Waikato, New Zealand
- Developed and distributed in cooperation with UNESCO and Human Info NGO, Belgium
- Issued under the GNU General Public License



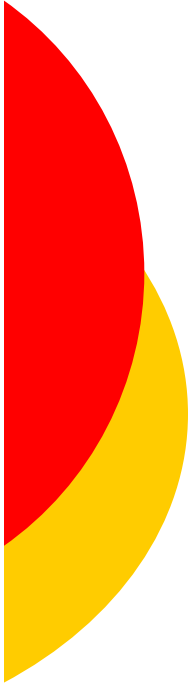
GSDL : Introduction

- Building digital libraries
- Distributing digital collections
- Organizing information
- Publishing on the Internet
- CD-ROM Collection



GSDL - Objective

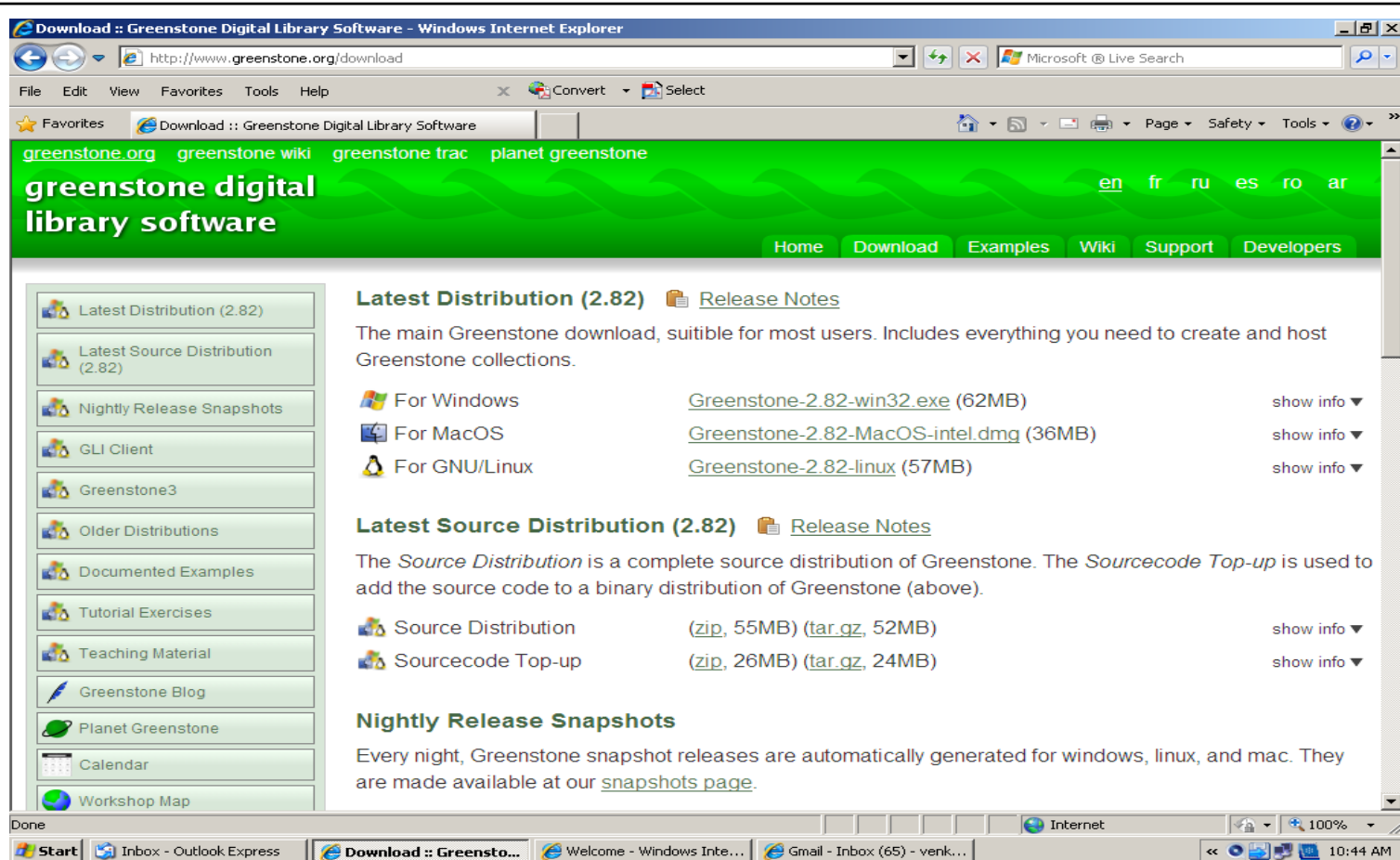
The aim of the software is to empower users, particularly, in universities, libraries and other public service institutions, to build their own digital libraries.



GSDL: Download

- Current Version 2.82 (16 June 2009)
- This distribution includes:
 - Pre-built demonstration collection
 - Developing new collections
- Available for free to download from
 - www.greenstone.org
 - www.sourceforge.net

GSDL: Download





GSDL - Features

Platforms:

- Runs on all versions of Windows, Unix, Mac OS-X.
- End users can install the software on desktops
- Institutional users run it on their main web server, where it interoperates with standard web server software (Apache).



GSDL - Features

Interface:

- End users access the digital library collections through the User Interface, which operates within a web browser.
- The Librarian Interface is a Java-based graphical interface



GSDL - Features

Metadata Format:

- New metadata sets can be defined using Greenstone's Metadata Set Editor.
- The pre-defined metadata sets in GSDL are:
 - Dublin Core (DC)
 - RFC 1807
 - New Zealand Government Locator Service (NZGLS)
 - Australian Government Locator Service (AGLS)



GSDL - Features

Plug-ins:

- Used to ingest externally prepared metadata in different forms
- Plug-ins exist for - XML, MARC, CDS/ISIS, ProCite, BibTex, Refer, OAI, DSpace, METS.
- Plug-ins are also used to ingest documents in different formats.
- For textual documents, the plug-ins are: PDF, Postscript, Word, RTF, HTML, Plain Text, Latex, ZIP Archives, Excel, PPT, Email, Source Code.
- For multimedia, the plug-ins are: Images (GIF, TIFF, JPG, JIF), MP3 Audio, MPEG, MIDI, etc.



GSDL - Features

Interoperability:

- Can harvest documents over OAI-PMH (Open Archives Protocol for Metadata Harvesting) and include them in a collection.
- Any collection can be exported to METS and Greenstone can ingest documents in METS form.
- Any collection can be exported to DSpace ready for DSpace's batch import program, and any DSpace collection can be imported into Greenstone.



GSDL - Features

Multilingual:

- Uses UNICODE, which facilitates building, searching and browsing in any UNICODE compliant language
- The Users' interface is available in a number of languages, including Bengali, Hindi and Kannada



GSDL - Features

Multimedia:

- Allows creation of non-textual multimedia such as audio, video, and pictures accompanied by textual description or metadata
- Allows searching and browsing of multimedia



GSDL - Features

Indexing:

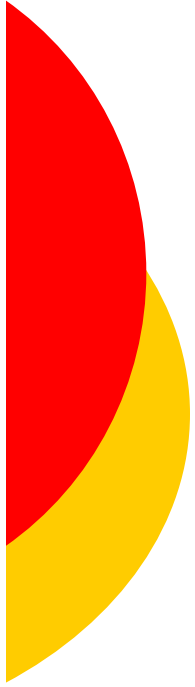
- Can build indexes from full text documents and also metadata associated with these documents.
- The indexes can be created for various metadata fields either automatically extracted or manually assigned.



GSDL - Features

Search and Browse:

- Provides a variety of search options as full text based indexing is made possible.



GSDL: Summary of features

- Easy Installation and easy Maintenance
- Content Development - Predominantly GLI
- 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



GSDL : Summary of features

- ✓ Accessible via any Web browser
- ✓ Server runs on Windows and Linux
- ✓ Collections can be published on CD-ROM
- ✓ Full-text and fielded search
- ✓ Flexible browsing facilities
- ✓ Metadata-based (Dublin Core)
- ✓ Collection-specific



GSDL: Summary of features

- ✓ Hierarchical phrase browsing supported
- ✓ Creates all access structures automatically
- ✓ Plugins – new document, metadata format
- ✓ Classifiers – new metadata browsers
- ✓ Multilingual: Documents and Interfaces
- ✓ Multimedia: video, audio collections



GSDL - Installation (Windows)

- ⑩ Version 2.81
- ⑩ To run Greenstone under any 32 bit Windows environment (that is, Windows 95/98/Me/NT/2000/XP etc.).
- ⑩ Standard Windows installer program, simply download the file and double-click it to install



GSDL : Software Required

- Greenstone Digital Library Software

<http://www.greenstone.org>

(Release 2.81 onwards JRE & ImageMagick are included in the GSDL installer)

- Web Browser

(Internet Explorer/Netscape/Mozilla)

<http://www.msn.com>;

<http://www.netscape.com>

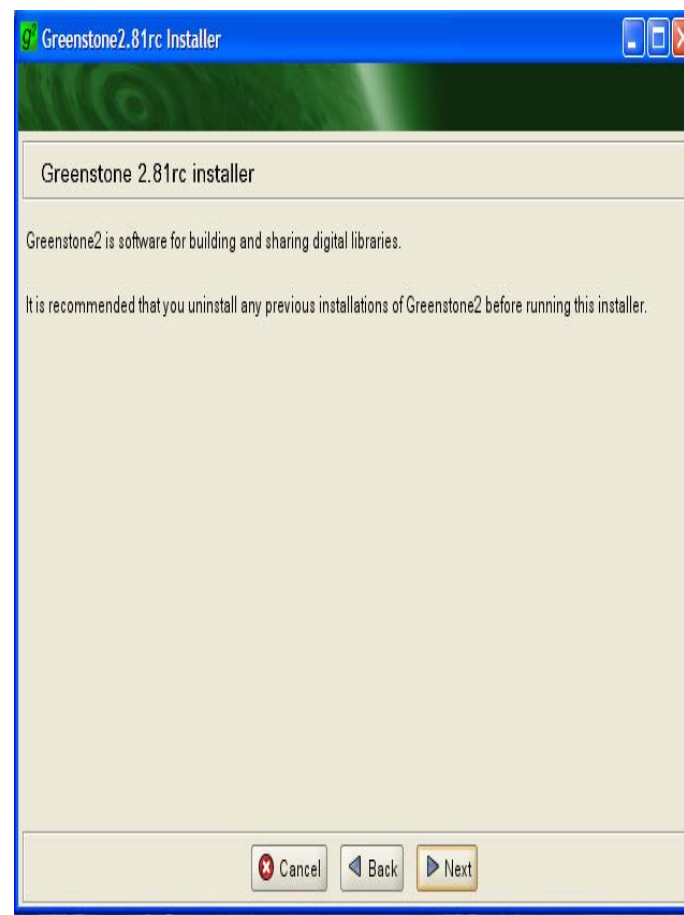
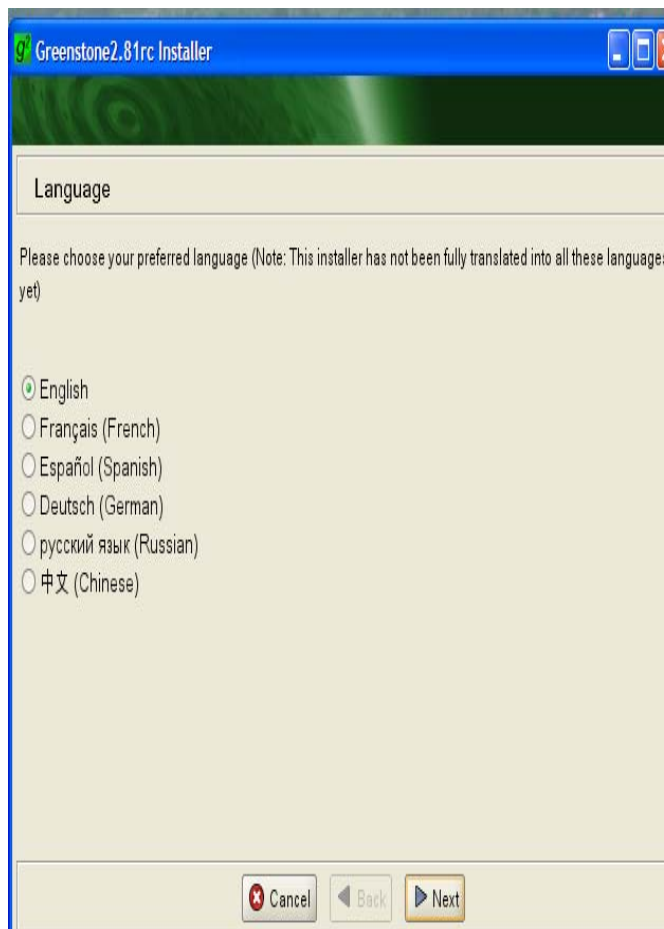
<http://www.mozilla.com>



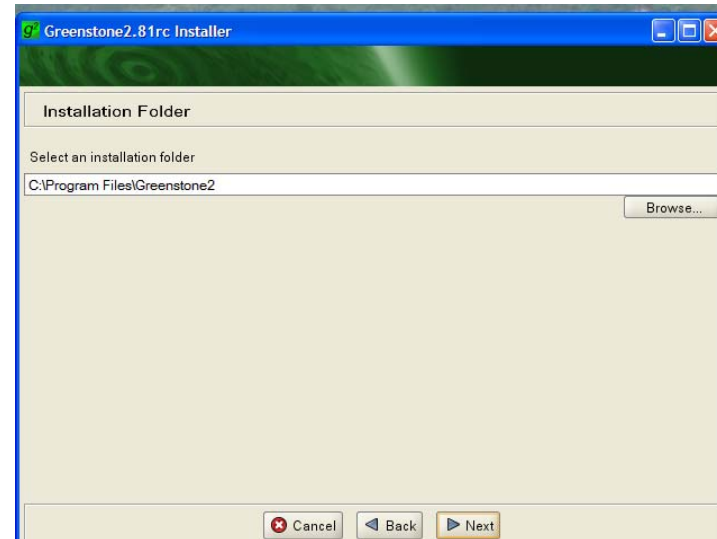
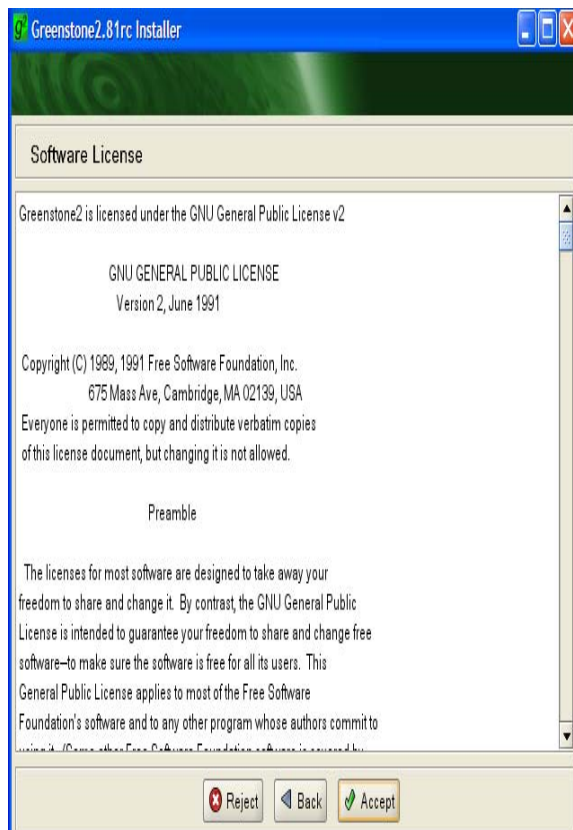
GSDL - Installation



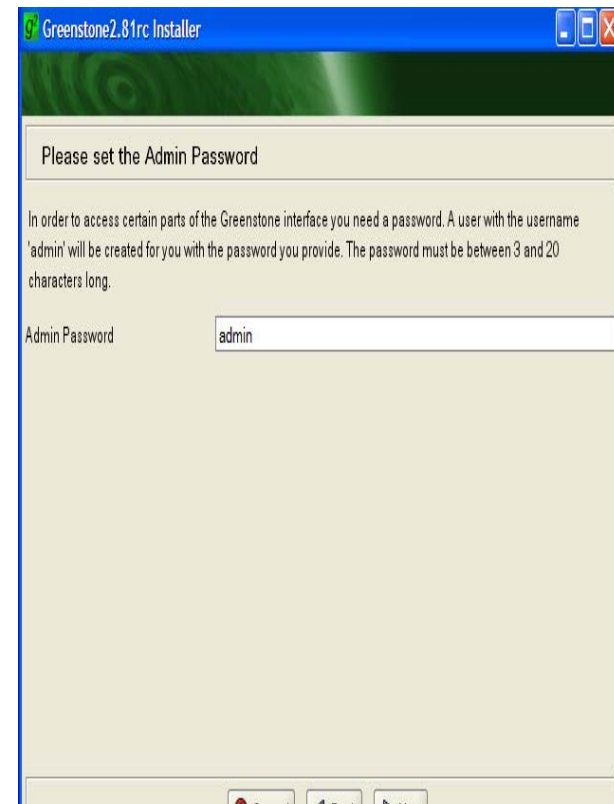
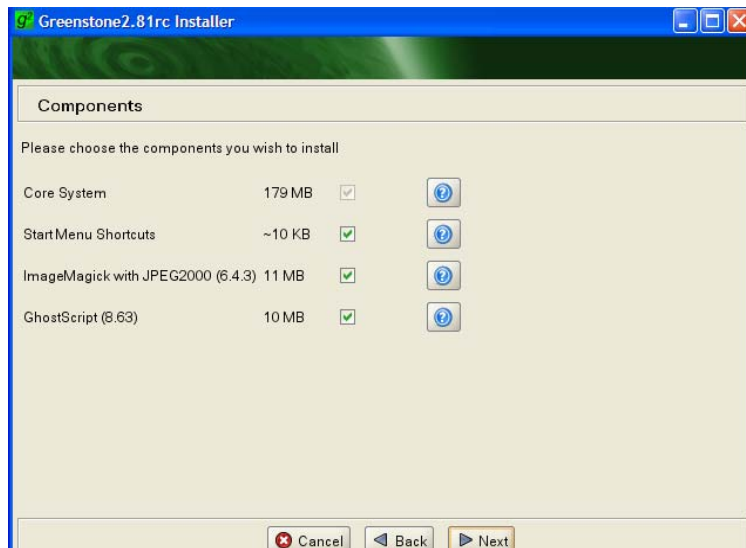
GSDL - Installation



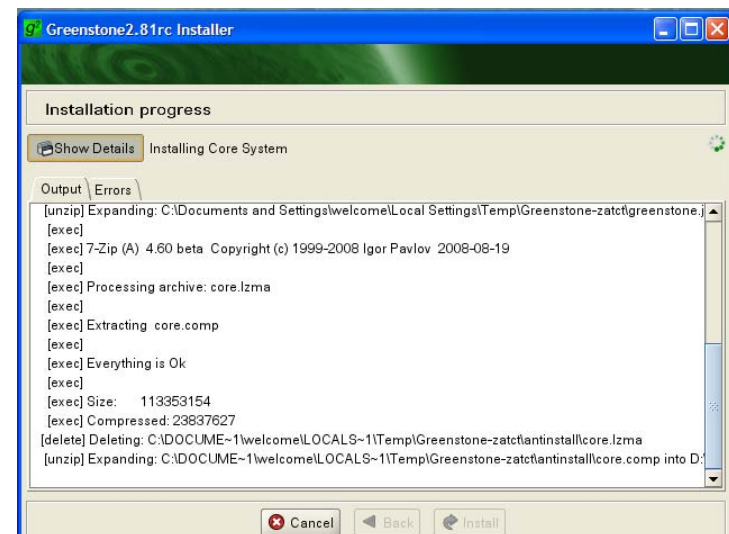
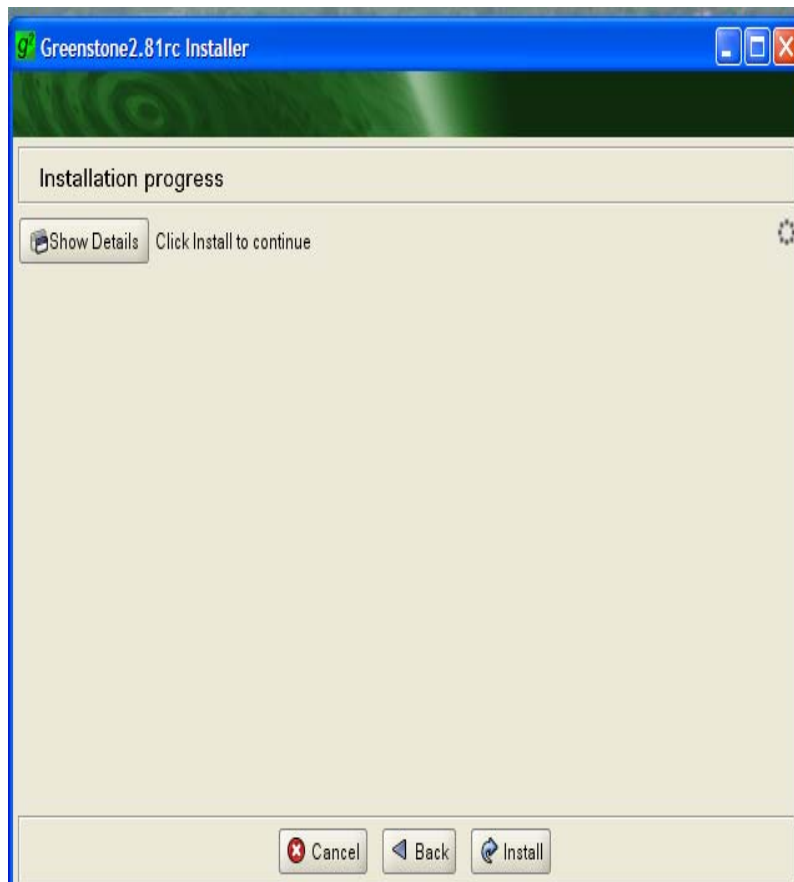
GSDL - Installation



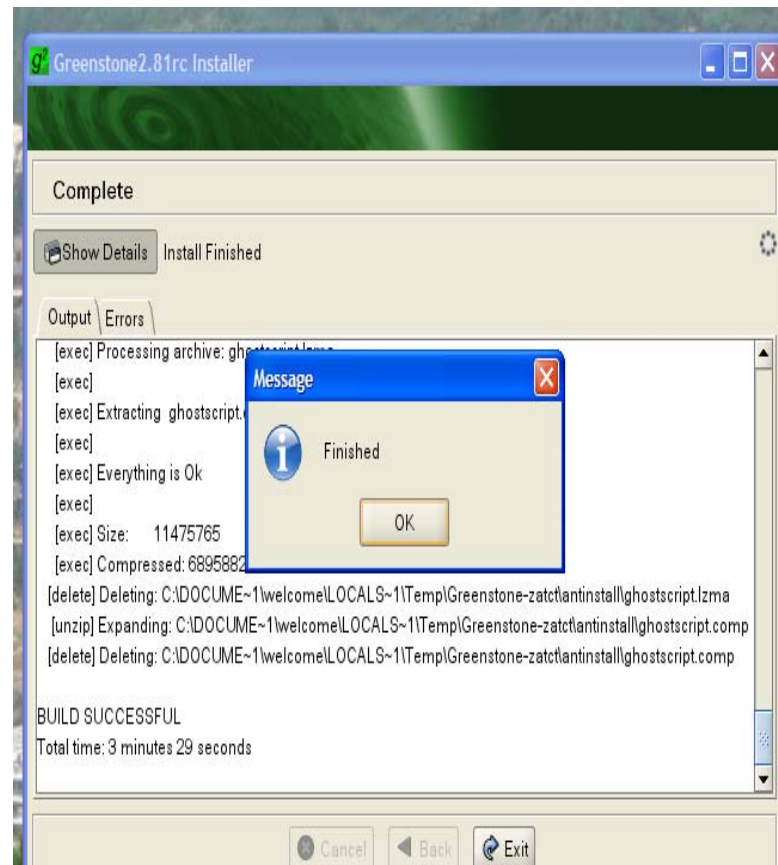
GSDL - Installation



GSDL - Installation



GSDL - Installation

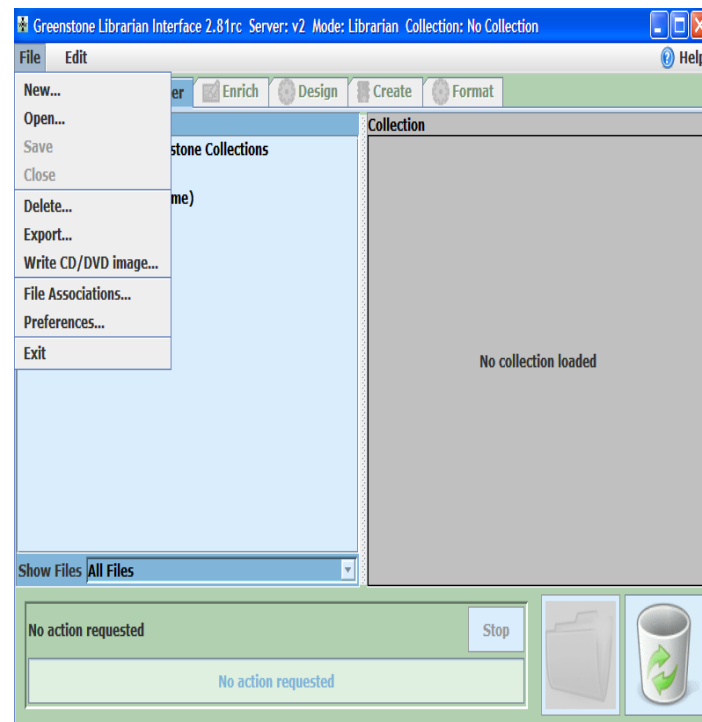
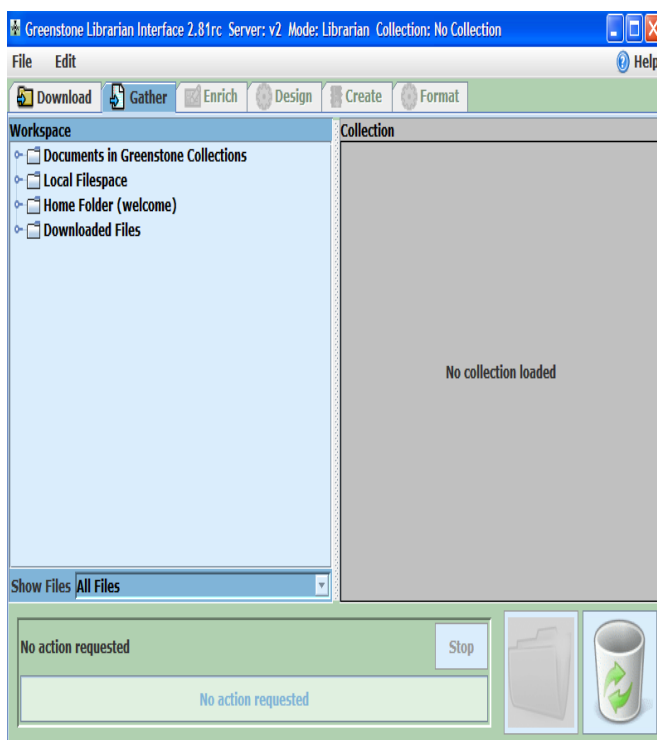




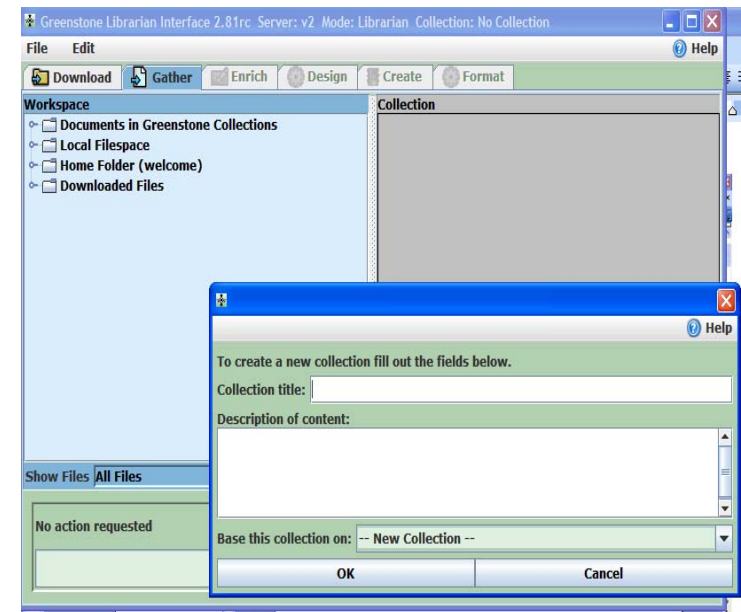
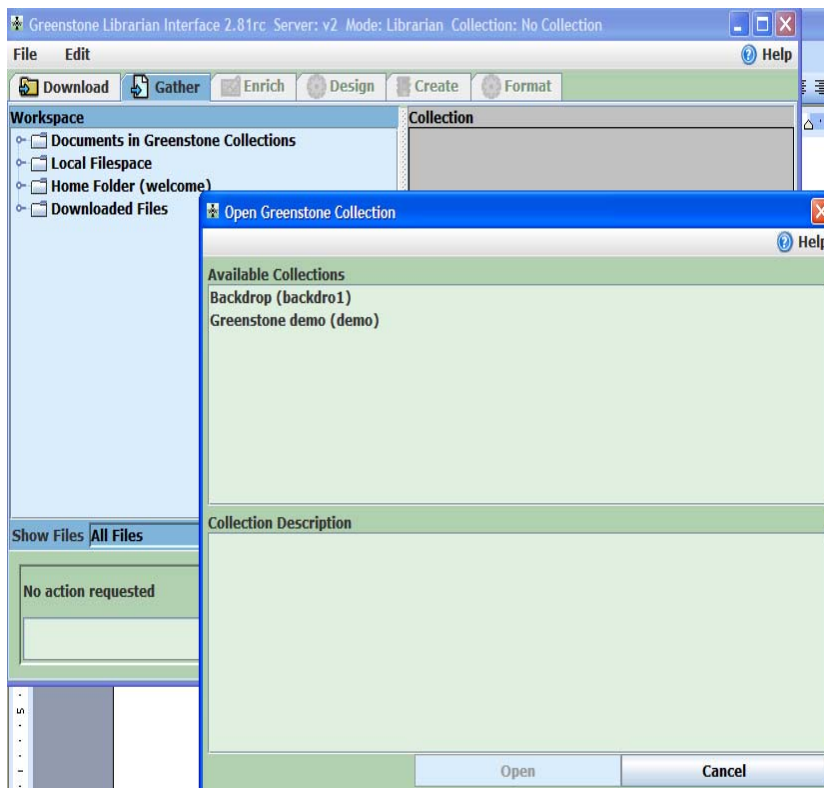
GSDL - GLI

- The installation of the GLI is integrated with the installation of GSDL.
- Java based interface for building digital library collections
- Very user-friendly approach to building digital collections.
- Targeted at four different levels of user - Assistant Librarians, Librarians, Library System Specialists and Expert users.
- Supports seven basic activities such as Download, Gather, Enrich, Design, Format, Build and Preview the collection.

GSDL -GLI



GSDL-GLI





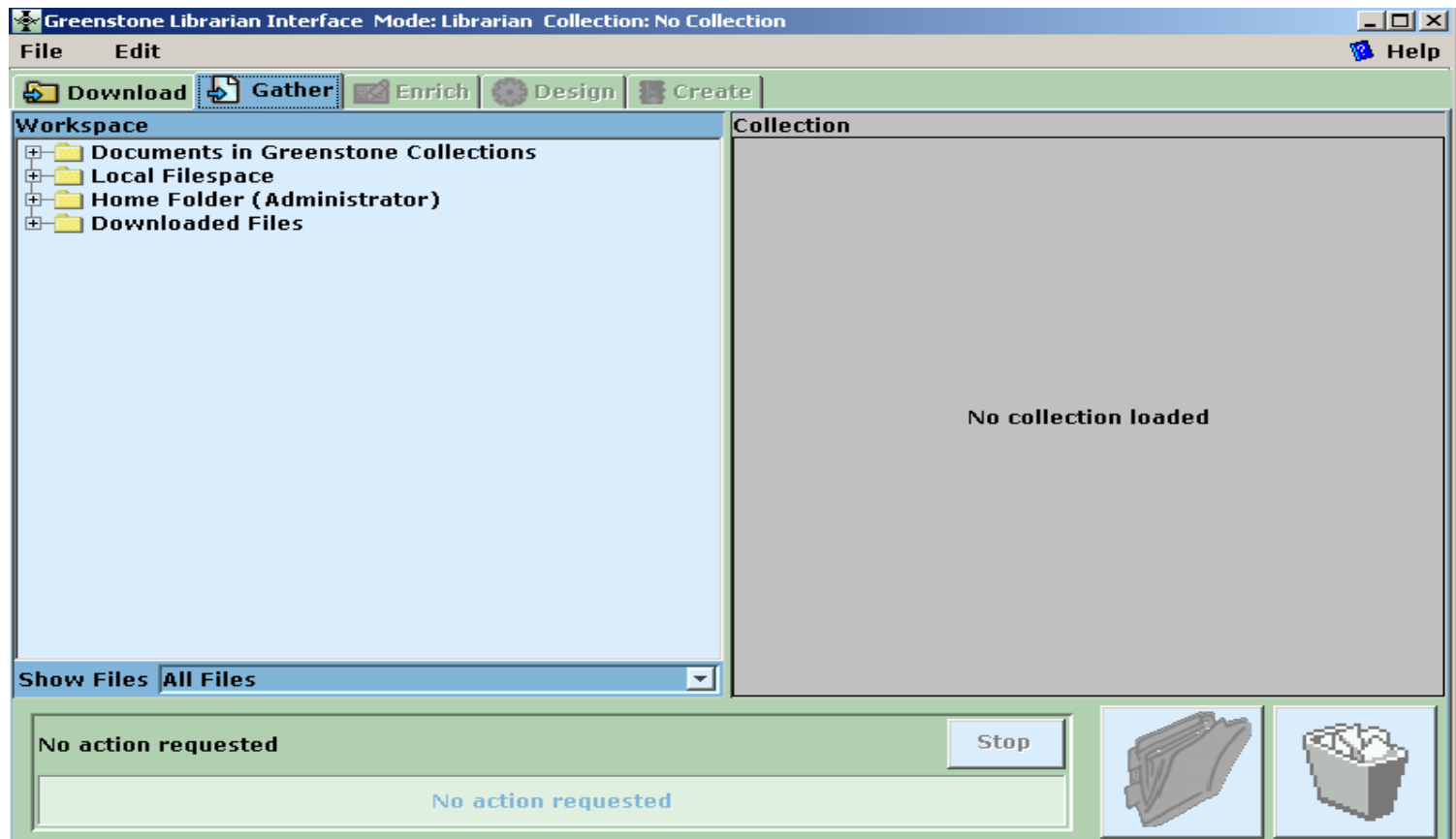
GSDL - GLI

- *Download* - Downloading files and websites from the Internet
- *Gather* - Gathering the source documents that will comprise the collection and associate appropriate metadata element set.
- *Enrich* - Assigning metadata for each source document
- *Design* - Specifying collection configuration in terms of indexes, classifiers, etc.
- *Create* - Creating the collection
- *Format* - Designing the appearance of the Collection
- *Build and Preview* - Building and Previewing the created collection

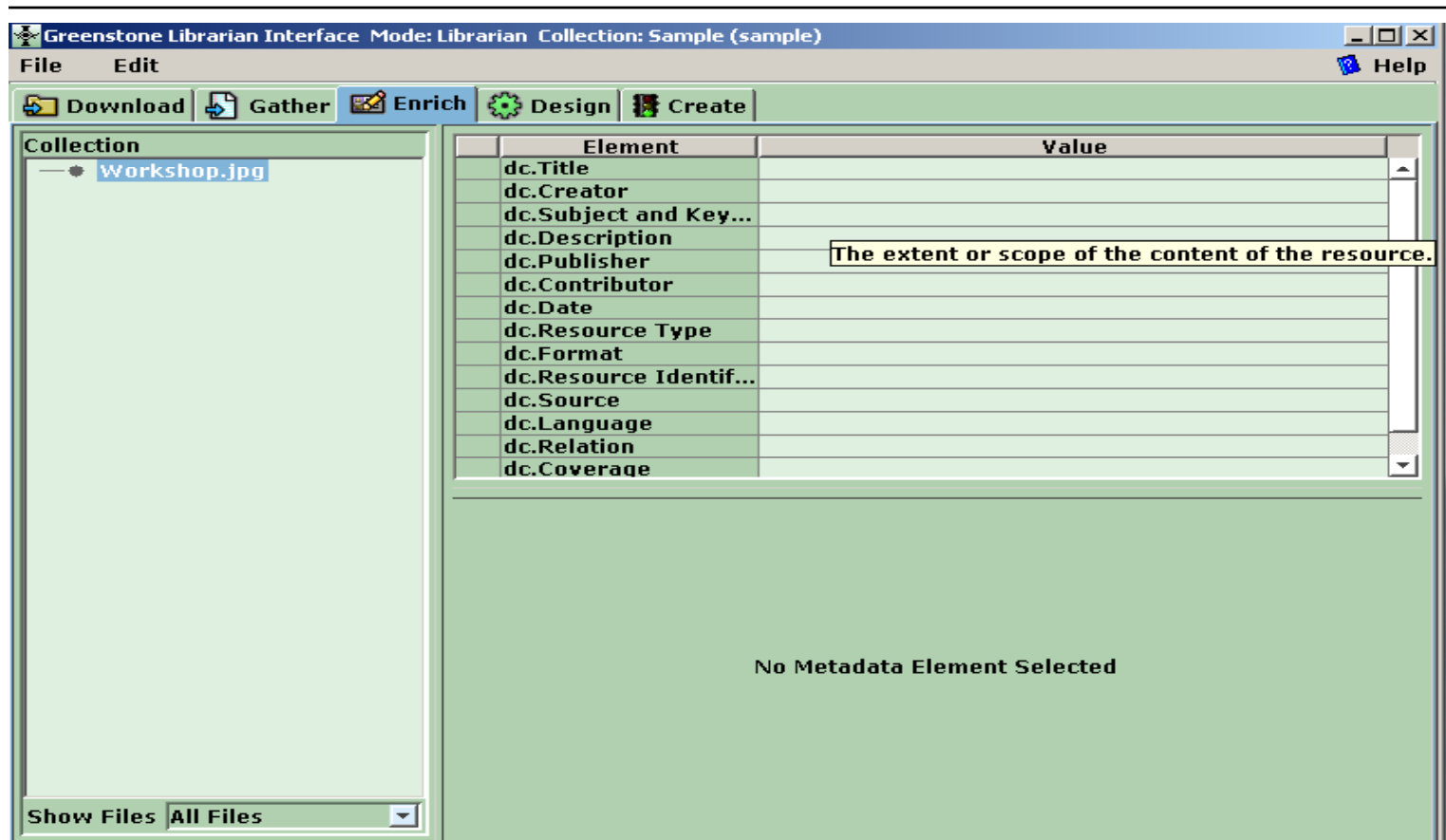
GSDL-GLI: Download

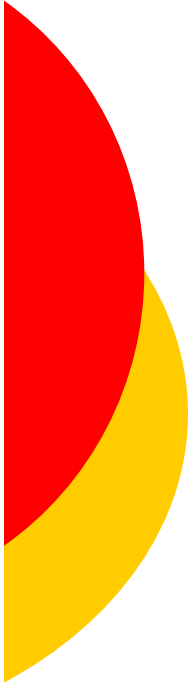


GSDL - GLI: Gather



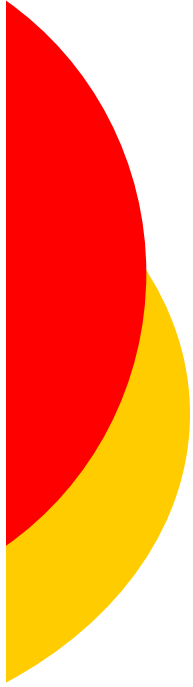
GSDL - GLI: Enrich





GSDL-GLI: Enrich (DC)

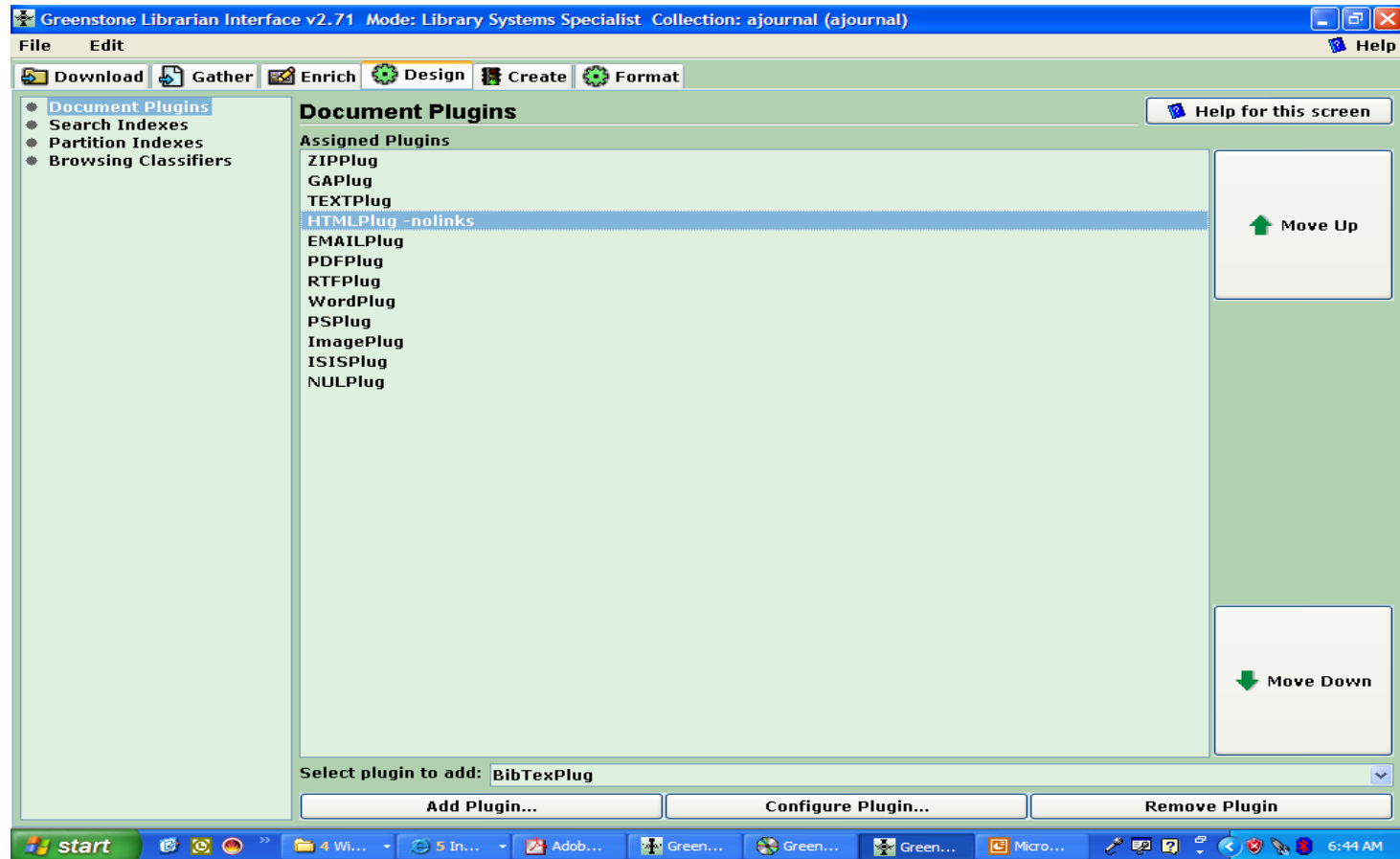
Title	The name given to the resource by the creator or publisher
Creator	The person responsible for the intellectual content of the resource
Subject	The Topic of the resource
Description	A textual description of the content of the source
Publisher	The Entity responsible for making the resource available
Contributor	A person or organization (other than the Creator) who is responsible for making significant contributions to the intellectual content of the resource
Date	A date associated with the creation or availability of the resource



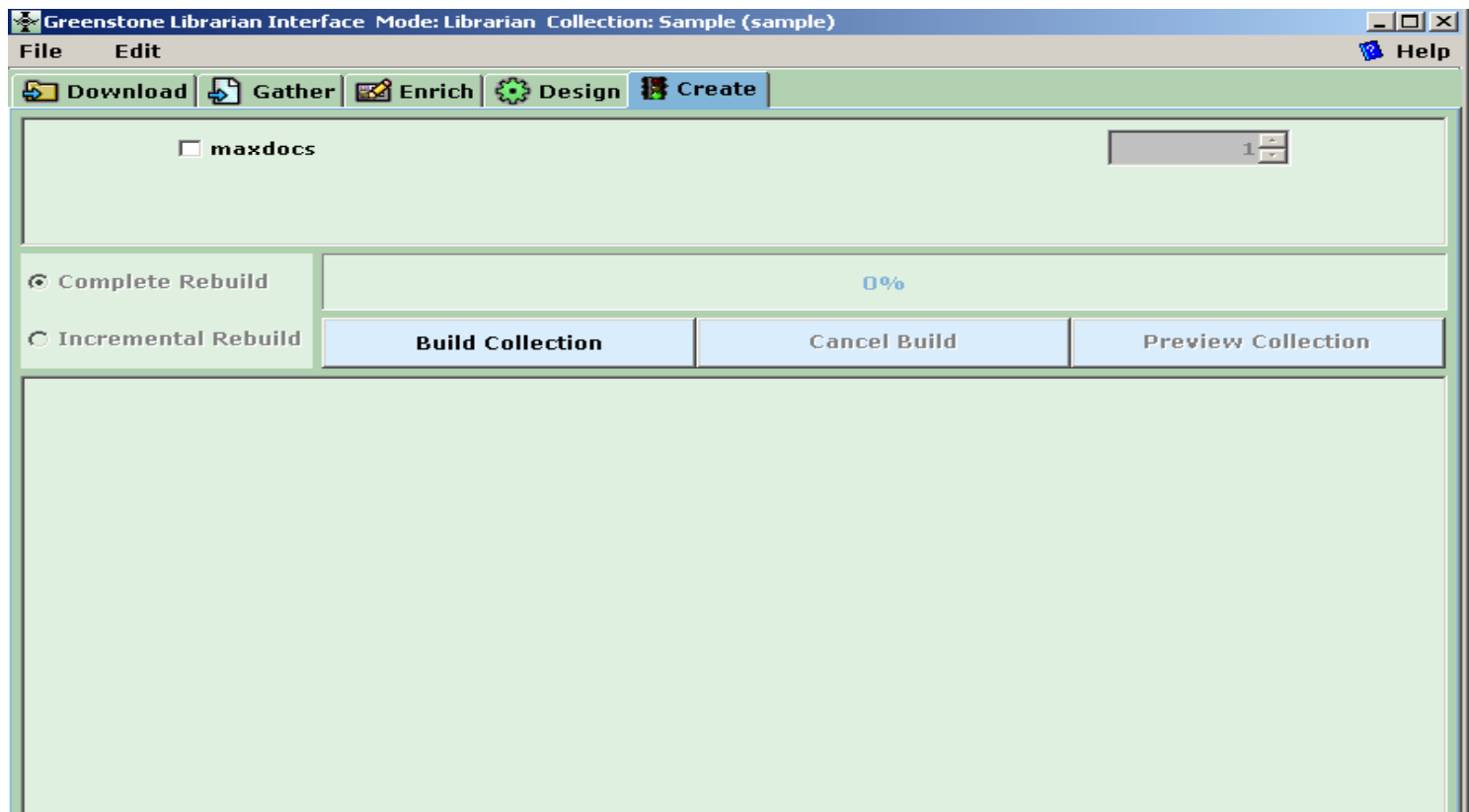
GSDL-GLI: Enrich (DC)

Type	The nature or genre of the content of the resource
Format	The physical or digital manifestation of the resource
Identifier	An unambiguous reference that uniquely identifies the resource within a given context
Source	A reference to a second resource from which the present resource is derived
Language	The language of the intellectual content of the resource
Relation	A reference to a related resource, and the nature of its relationship
Coverage	Spatial locations and temporal durations characteristic of the content of the resource
Rights	Information about rights held in the resource

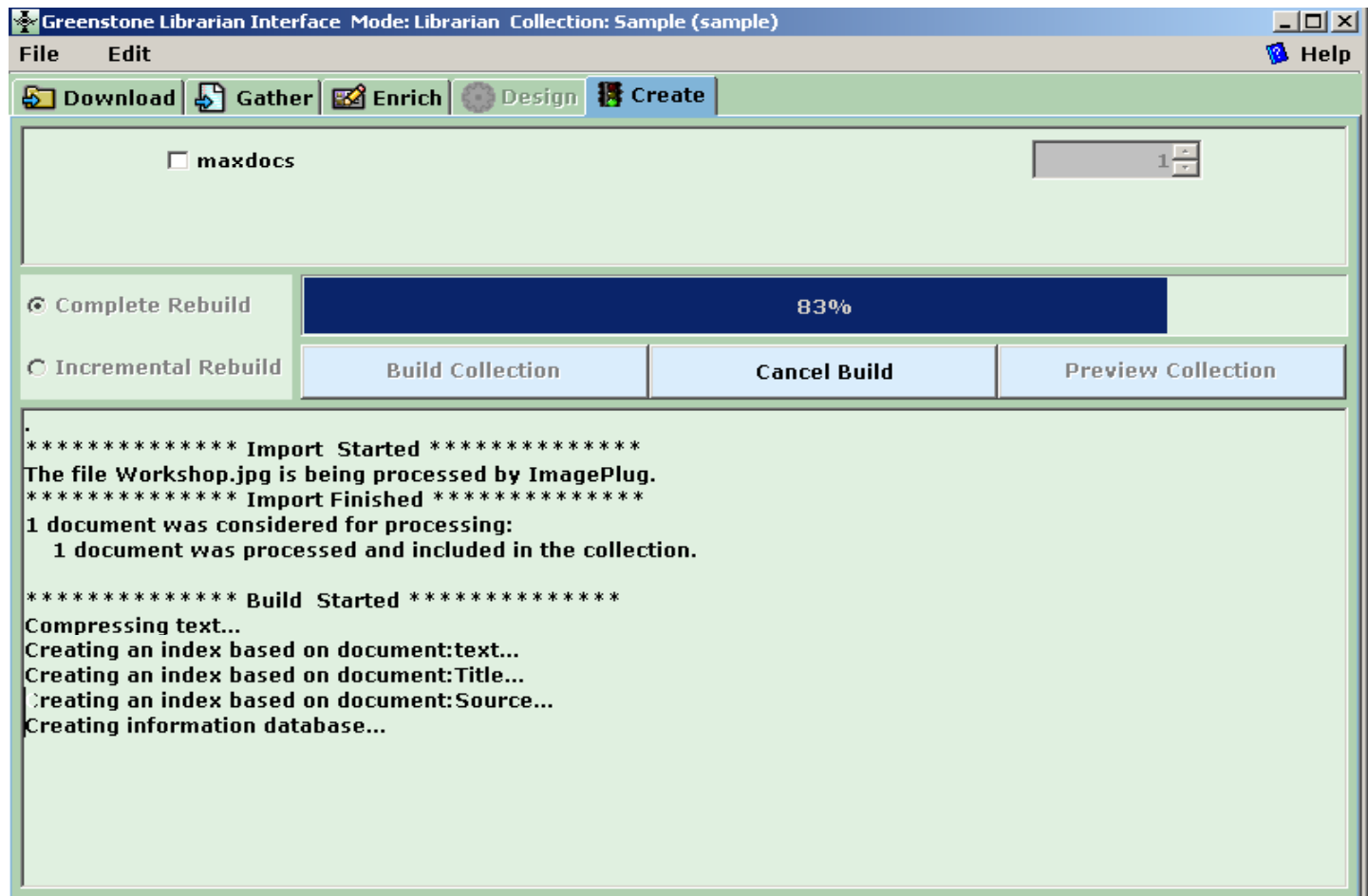
GSDL - GLI: Design



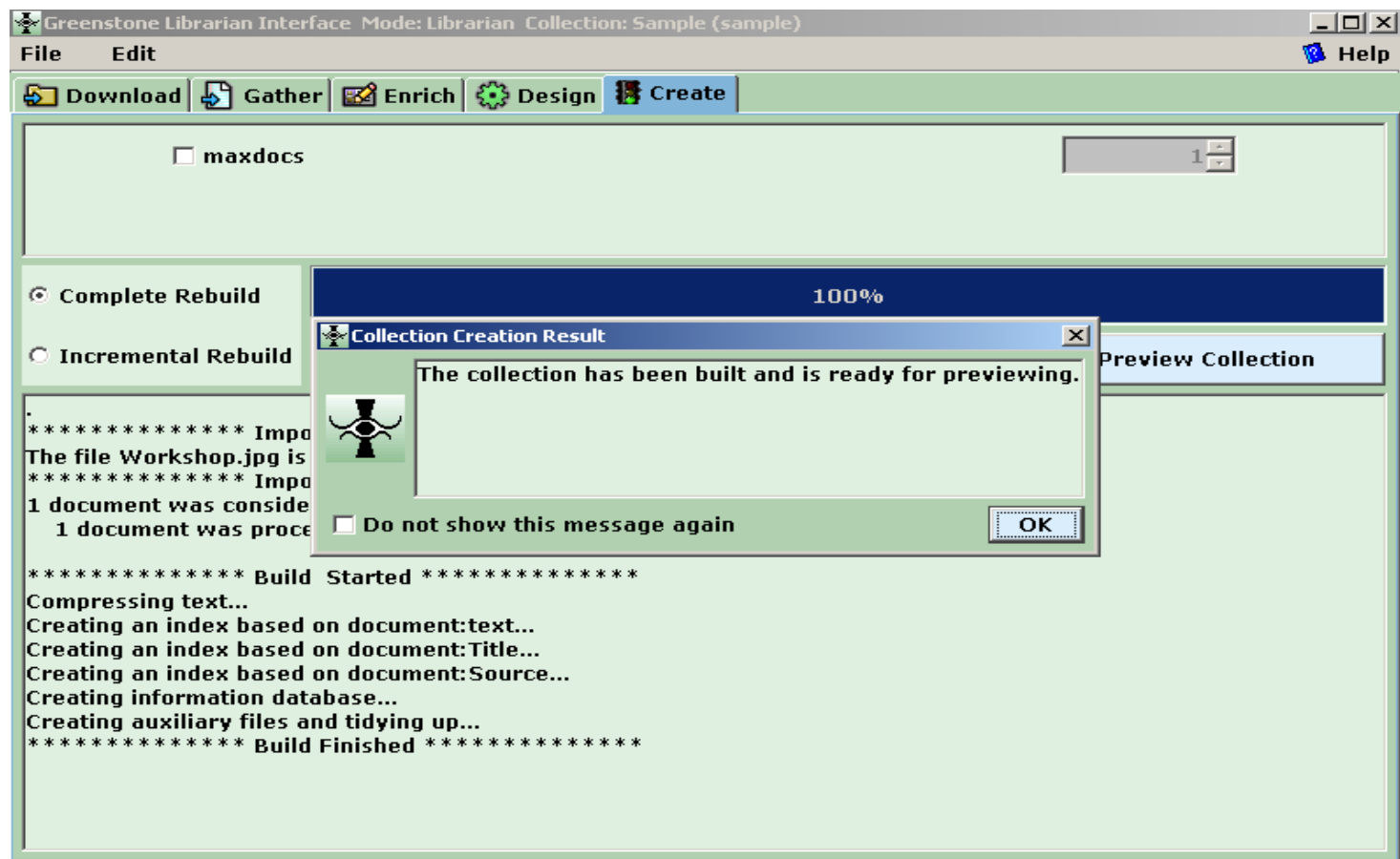
GSDL - GLI: Create



GSDL - GLI: Build



GSDL - GLI: Preview



GSDL-GLI: Format

Greenstone Librarian Interface 2.81rc Server: v2 Mode: Librarian Collection: Backdrop (backdro1)

File Edit Help

Download Gather Enrich Design Create **Format**

General Help for this screen

Creator's email

Maintainer's email

Collection title: Backdrop

Collection folder: backdro1

URL to 'about page' image: Browse...

URL to 'home page' image: Browse...

☒ This collection should be publicly accessible

Collection description:

A description of the purpose and content of the collection

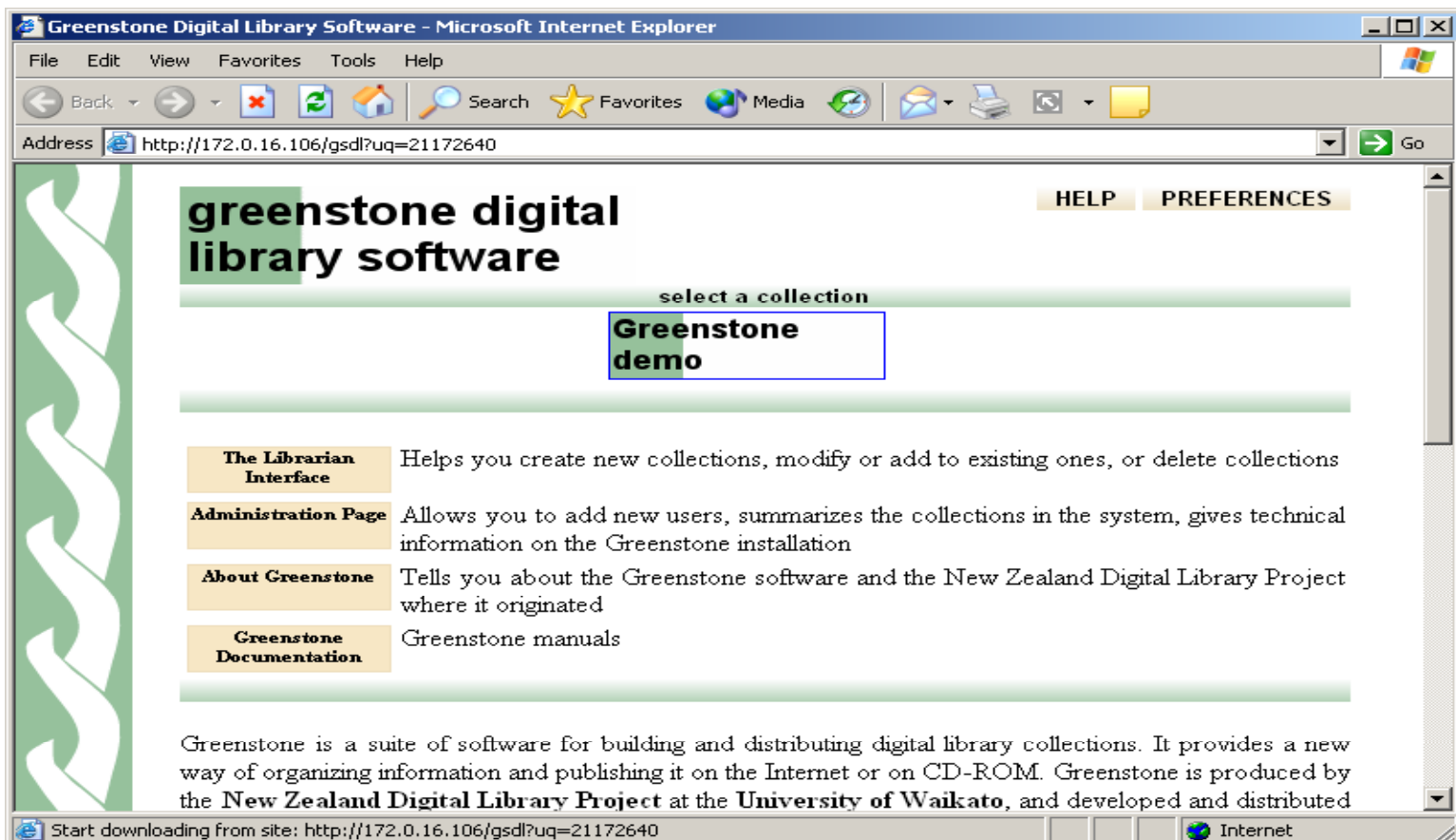
Preview Collection



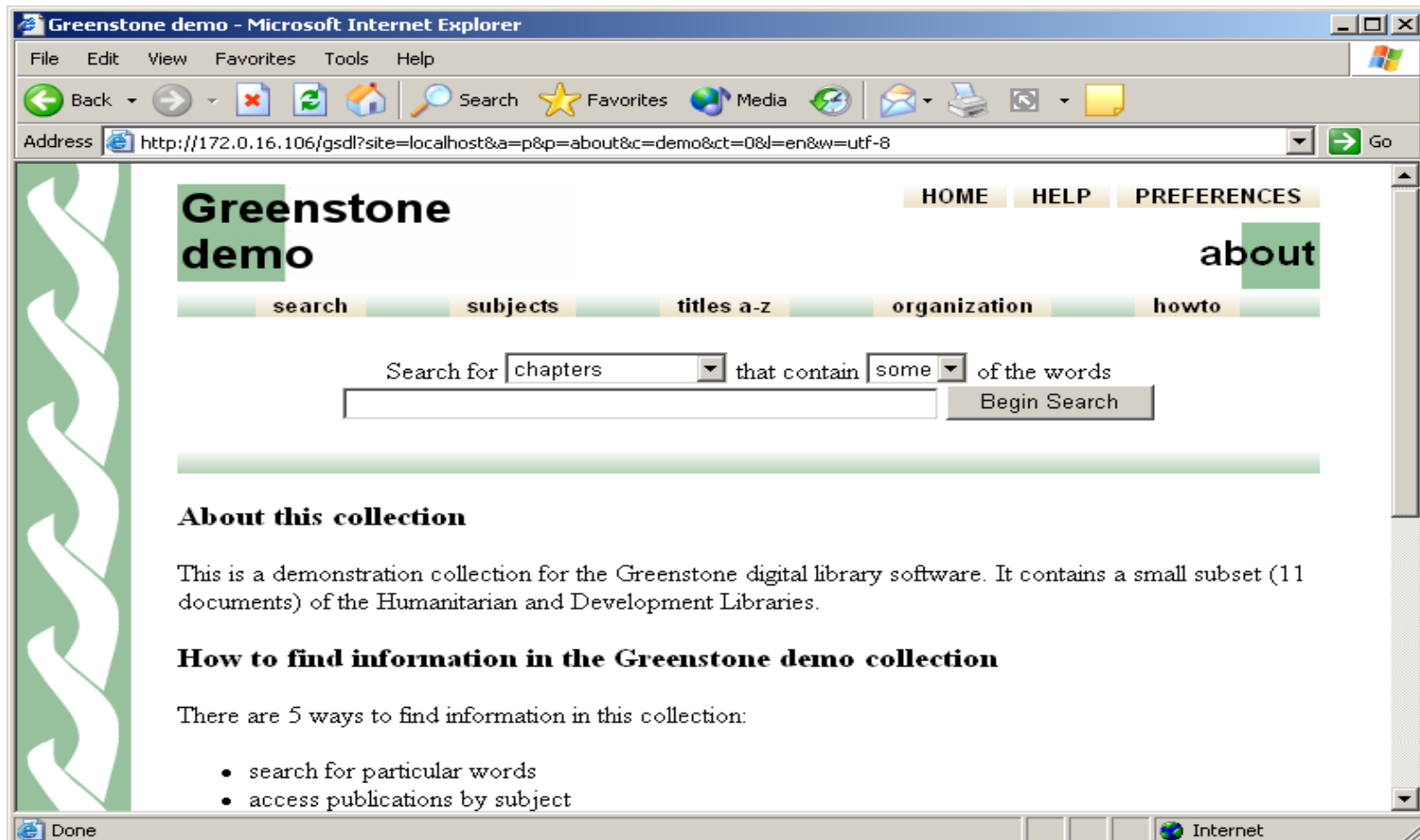
Greenstone User Interface

- Access the collection through its user interface.
- Searching the collections: Plain Search and Form-Based Search
- Browsing the documents by metadata fields
- View complete content
- Highlight matching search terms or not
- Detach the document for viewing in a different window.
- The Preference setting allows the user to change the language of the Greenstone interface.

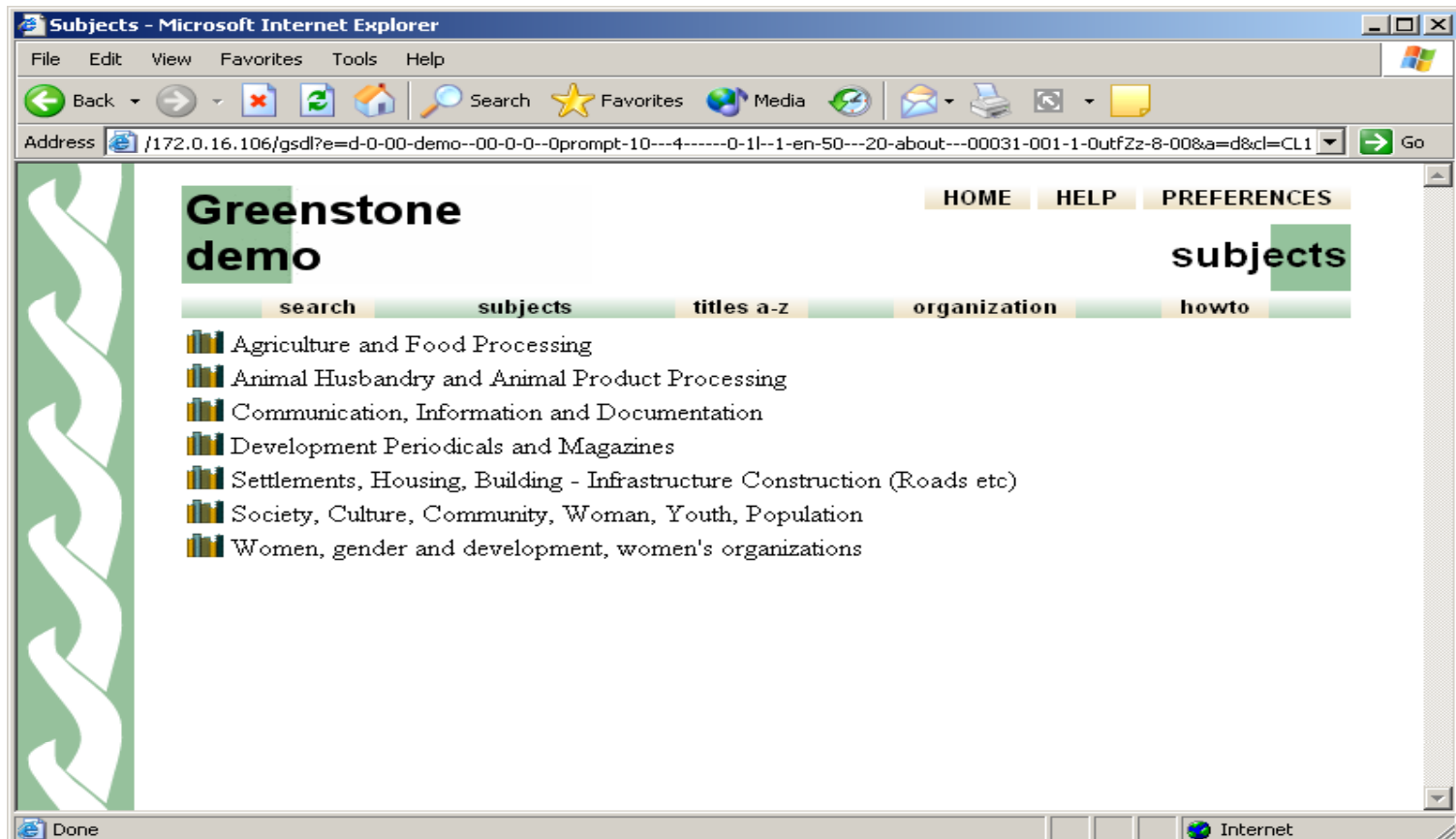
Greenstone User Interface



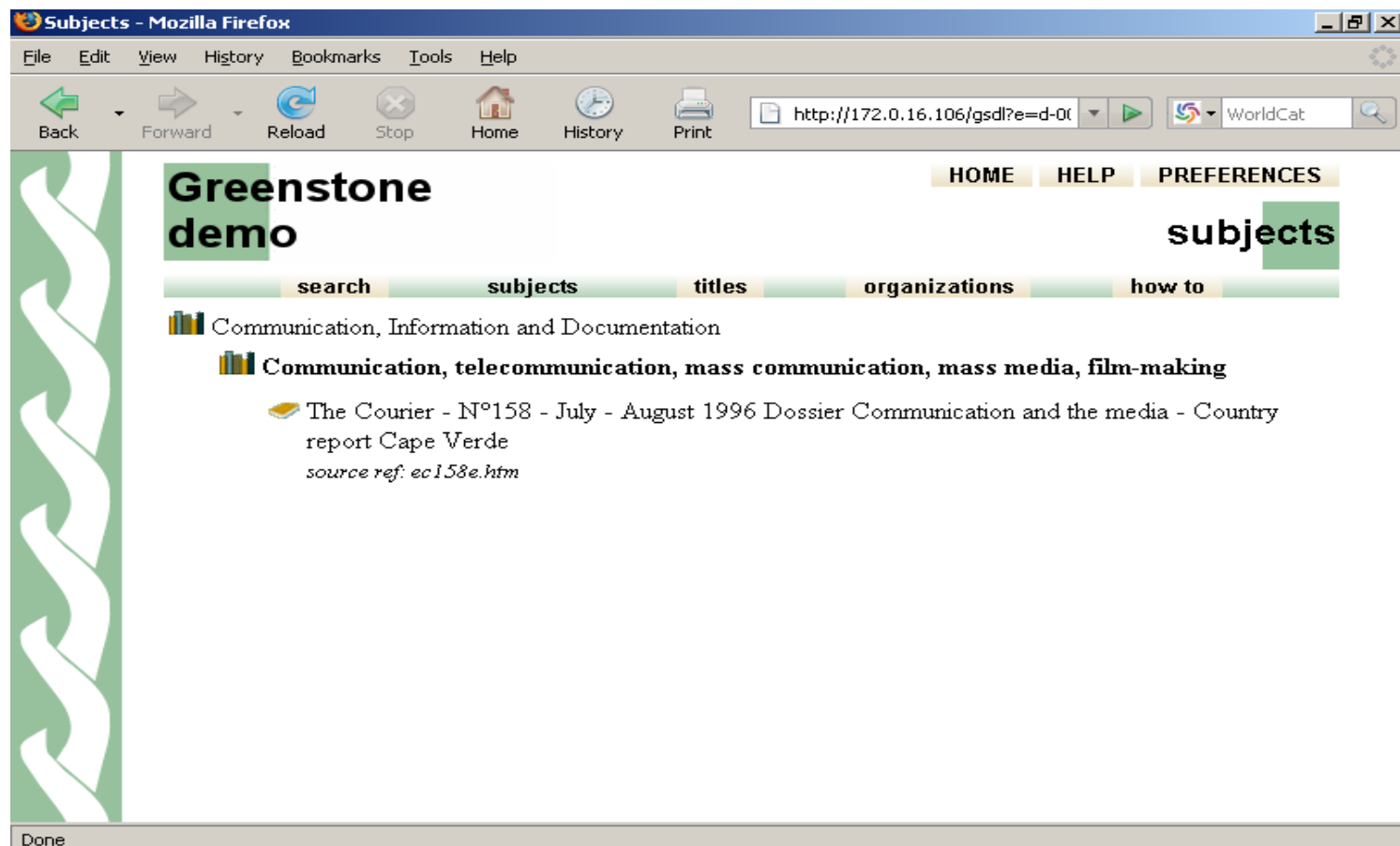
Greenstone User Interface



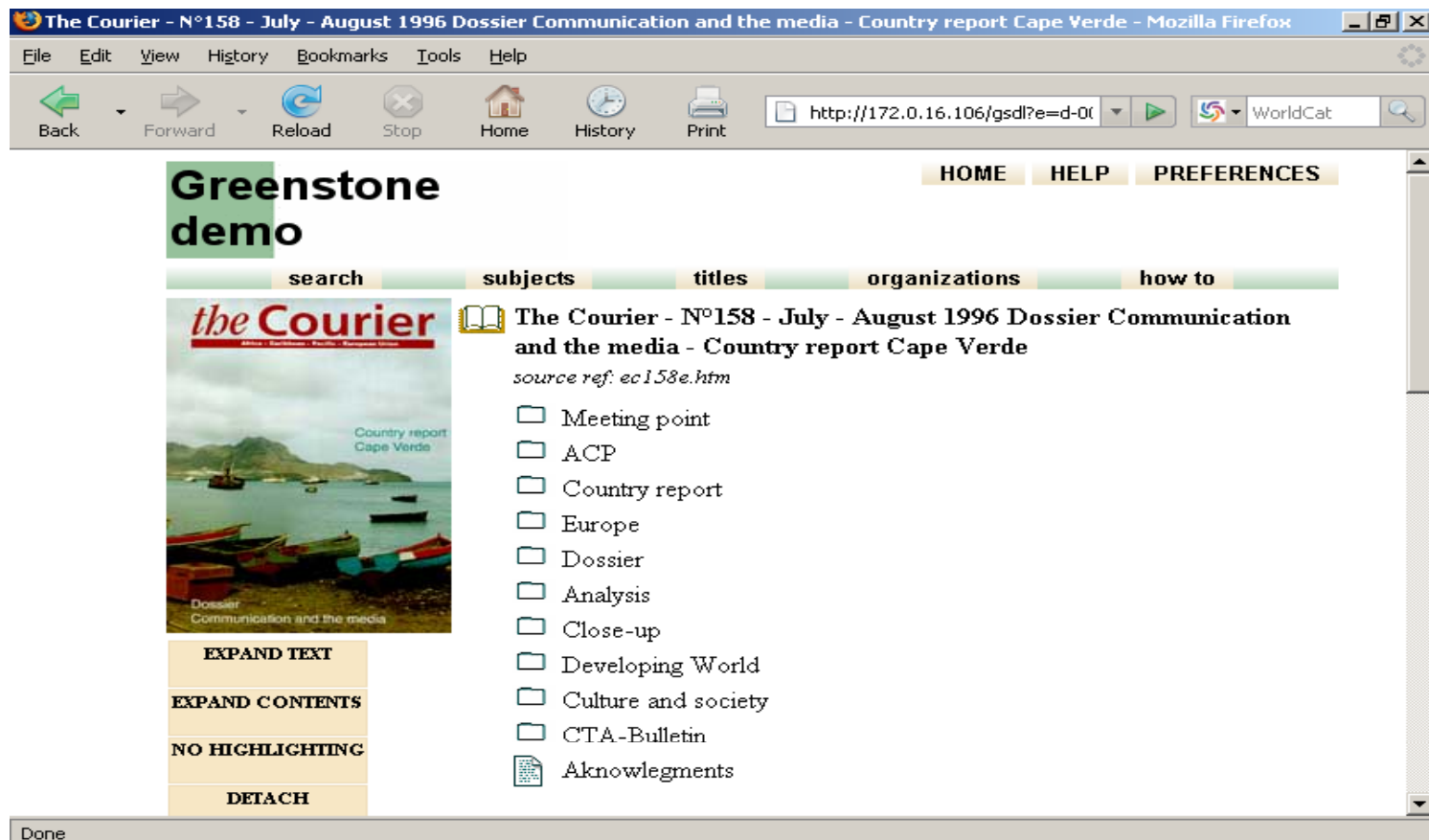
Greenstone User Interface



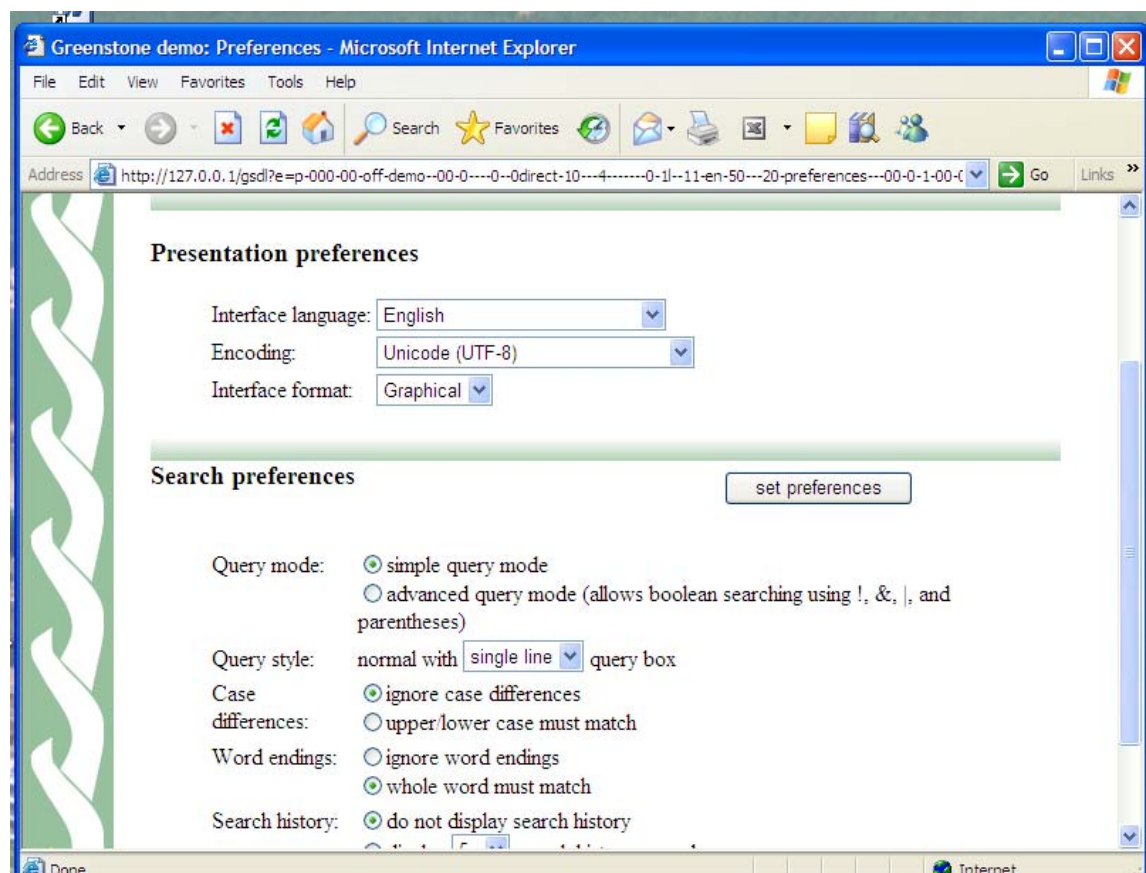
Greenstone User Interface



Greenstone User Interface



Greenstone User Interface



Greenstone User Interface



GSDL - Customization

- Greenstone Pages are controlled by macro files (available in *Greenstone* → *macros*), images, and CSS style sheets (available in *Greenstone* → *images*)
- The user interface look-and-feel can be altered using "macros" written in a simple macro language
- Home page can be customized by editing "yourhome.dm" in main.cfg



GSDL - Customization

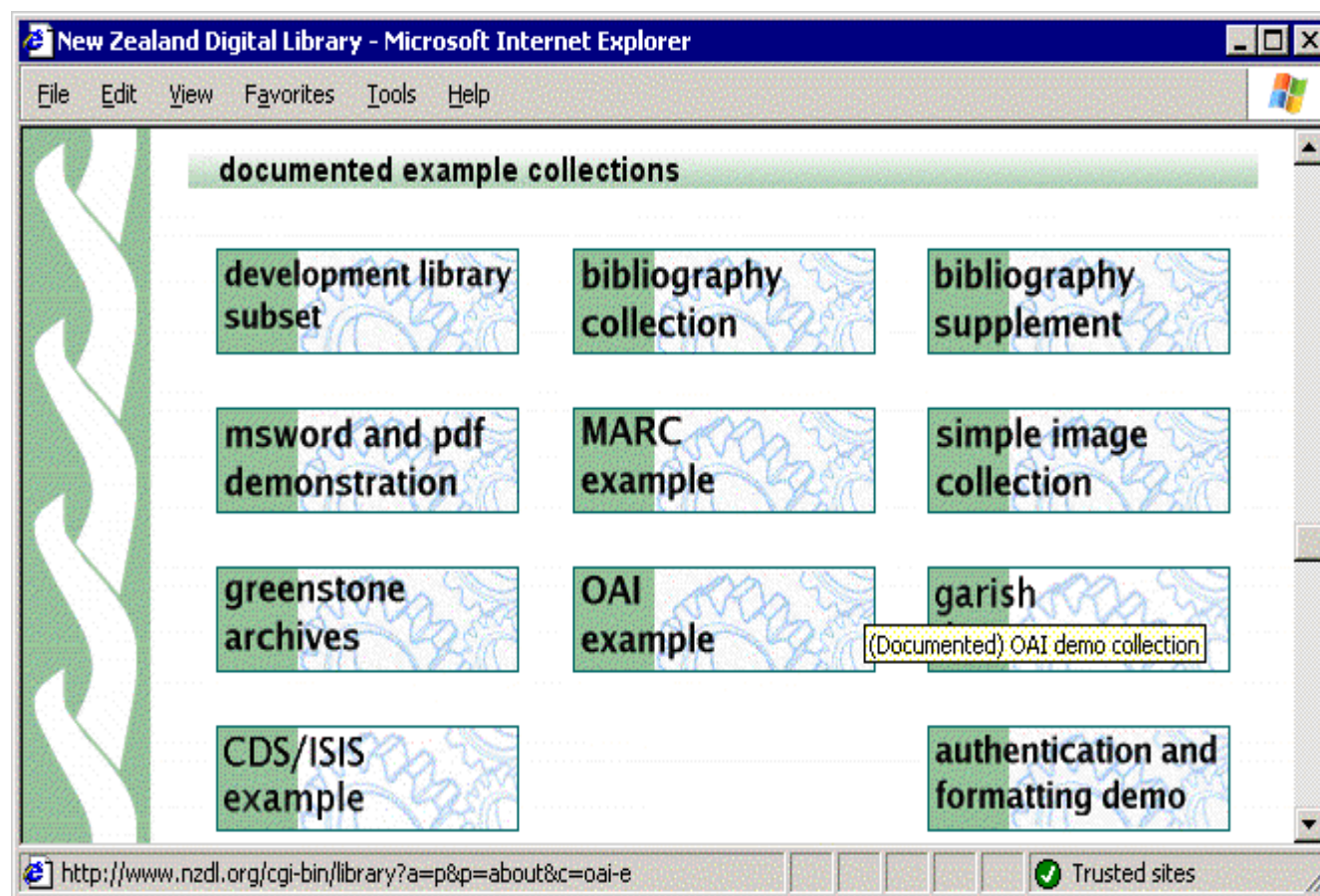
- Macro files
 - stored in gsdl/macros folder
 - each file defines one or more “packages”
(A “package” is a group of macros)
 - listed in etc/main.cfg
- Collection-specific macros
 - Stored in
gsdl/collect/mycol/macros/extra.dm



GSDL -Customization


- Collection configuration file
 - gsd/collect/mycol/etc/collect.cfg
- Images
 - gsd/images
- Macro files
 - gsd/macros/*.dm
- List of macro files
 - gsd/etc/main.cfg

GSDL: Example Collections



GSDL: Example Collections

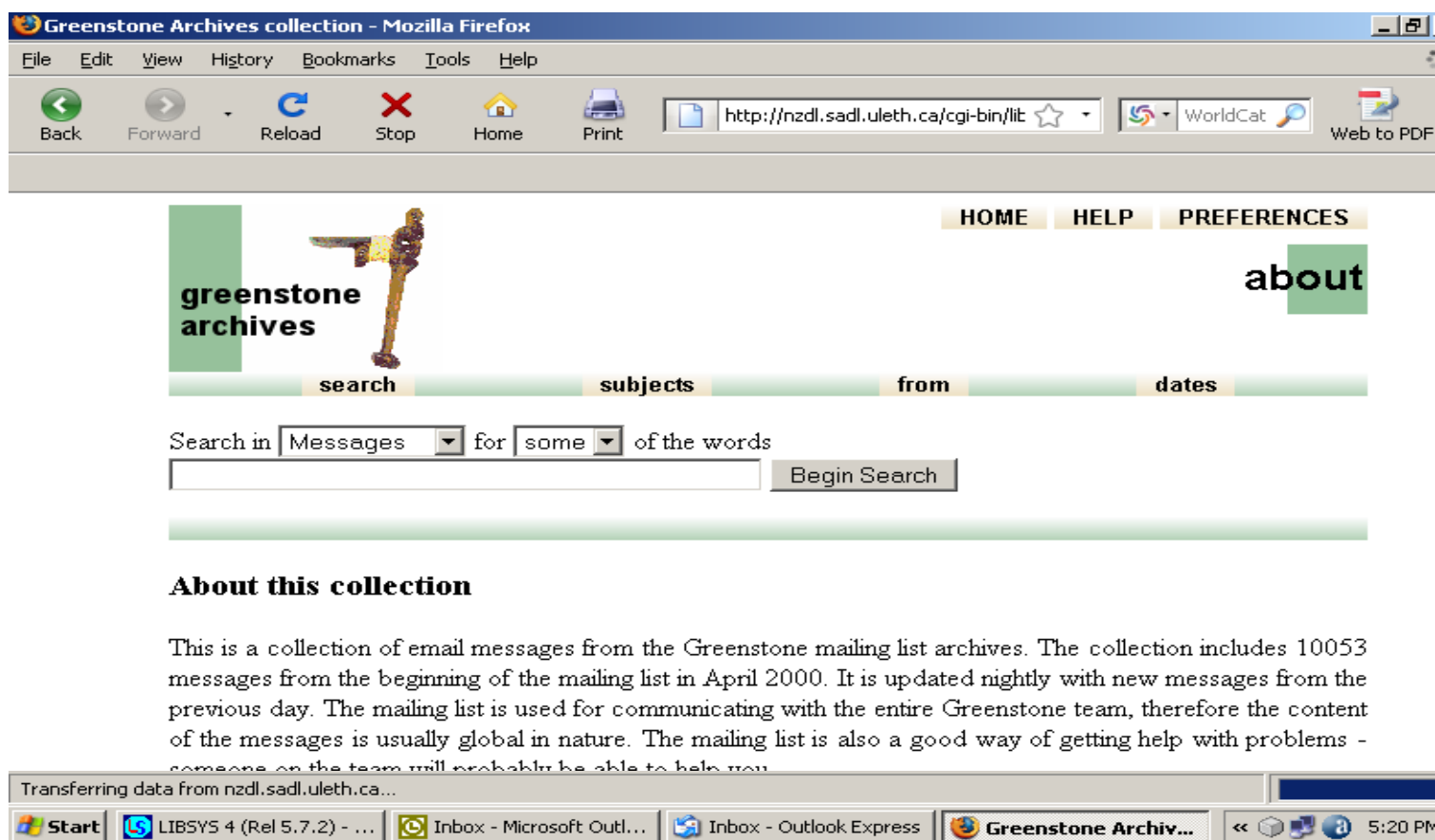




GSDL - Support

- www.greenstone.org
- <http://greenstone.org>
- Greenstone Mailing List
<https://list.scms.waikato.ac.nz/mailman/listinfo/greenstone-users>
- Greenstone Support Network India -Asia Region (greenstonesupport@iimk.ac.in)

GSDL Archives



Greenstone Archives collection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Back Forward Reload Stop Home Print WorldCat Web to PDF

HOME HELP PREFERENCES

greenstone archives

about

search subjects from dates

Search in for of the words

Begin Search

About this collection

This is a collection of email messages from the Greenstone mailing list archives. The collection includes 10053 messages from the beginning of the mailing list in April 2000. It is updated nightly with new messages from the previous day. The mailing list is used for communicating with the entire Greenstone team, therefore the content of the messages is usually global in nature. The mailing list is also a good way of getting help with problems - someone on the team will probably be able to help you.

Transferring data from nzdl.sadl.uleth.ca...

Start LIBSYS 4 (Rel 5.7.2) - ... Inbox - Microsoft Out... Inbox - Outlook Express Greenstone Archiv... 5:20 PM

Greenstone Wiki



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GreenstoneWiki

Welcome to GreenstoneWiki: Documentation for Greenstone

Are you a Greenstone user? Looking for documentation to help you build better collections?? This is the place for you!

(Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato, and developed and distributed in cooperation with [UNESCO](#) and the [Human Info NGO](#). To learn more about it or to download the software, visit [greenstone.org](#) or read the [Greenstone Fact Sheet](#).)

This documentation was prepared by the Greenstone team at the University of Waikato in New Zealand. If you're a Greenstone user, you can help us with the documentation project. [Here's how](#)

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GSDL -Support



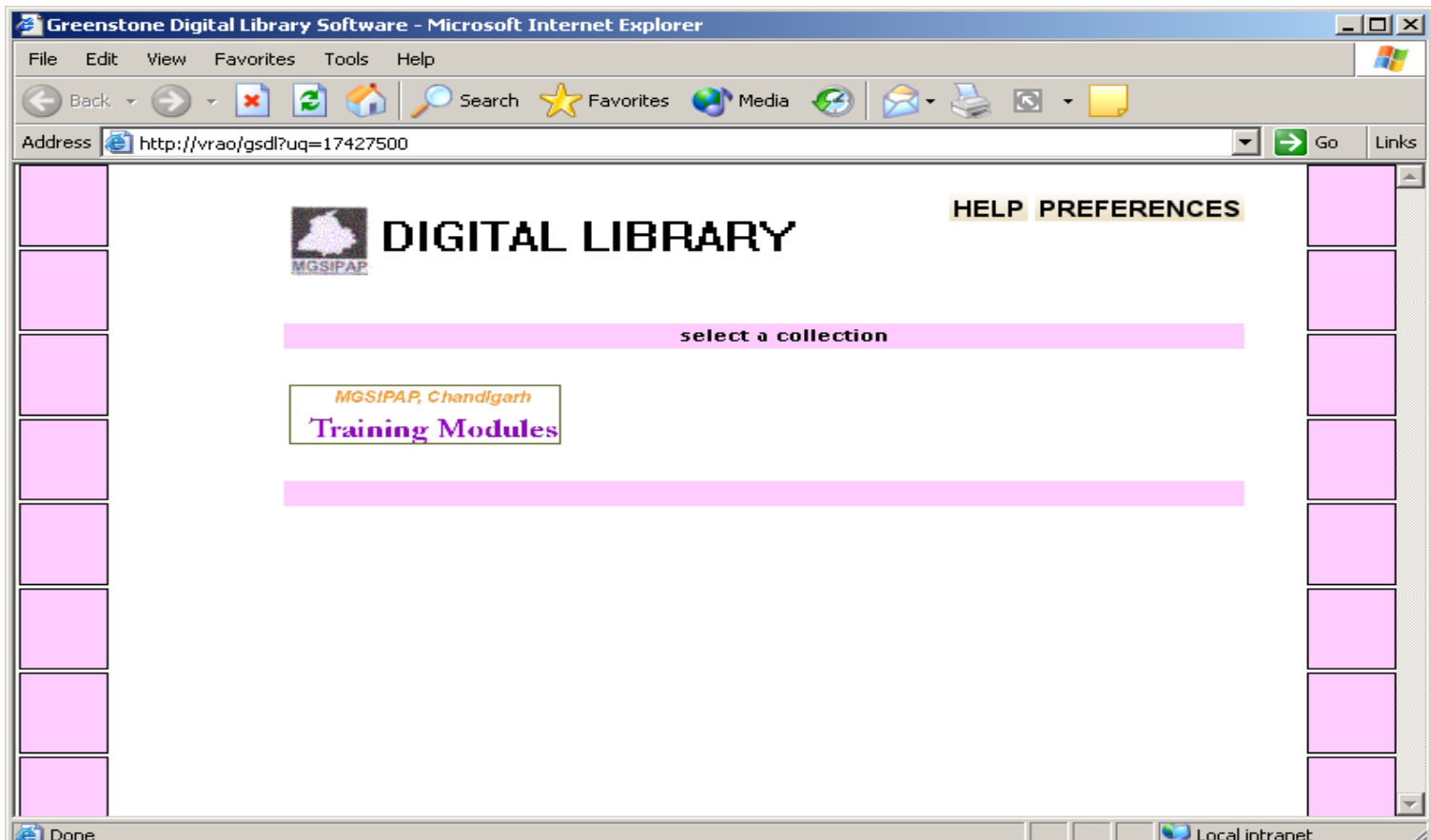


GSDL - Examples

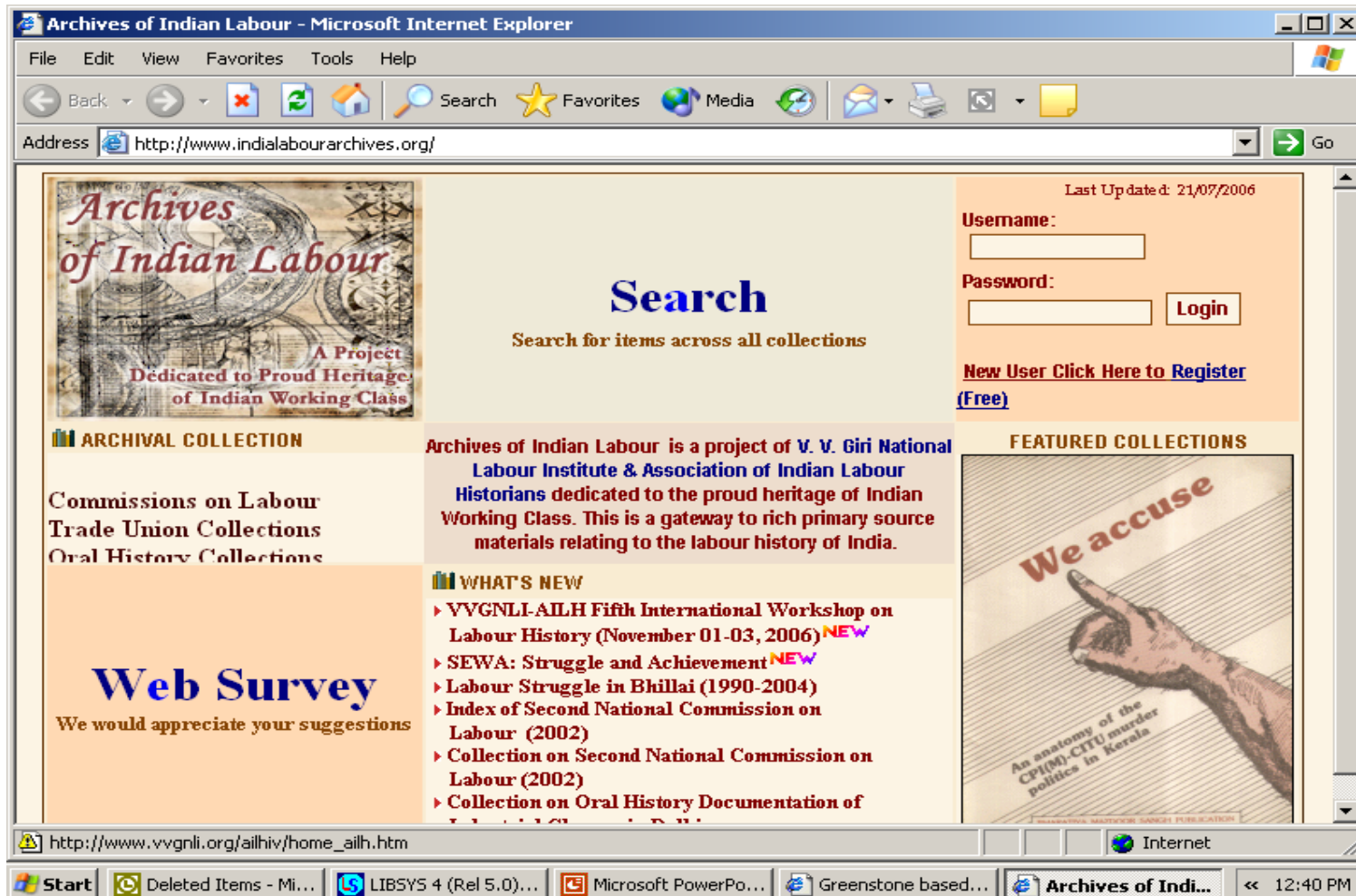
Some of Indian DLs using GSDL

- Archives of Indian Labour, Noida
- Indian Institute of Management Kozhikode
- Indian Institute of Science, Bangalore
- Indian Institute of Technology, Bombay
- M G S Institute of Public Administration, Punjab, Chandigarh
- Many...

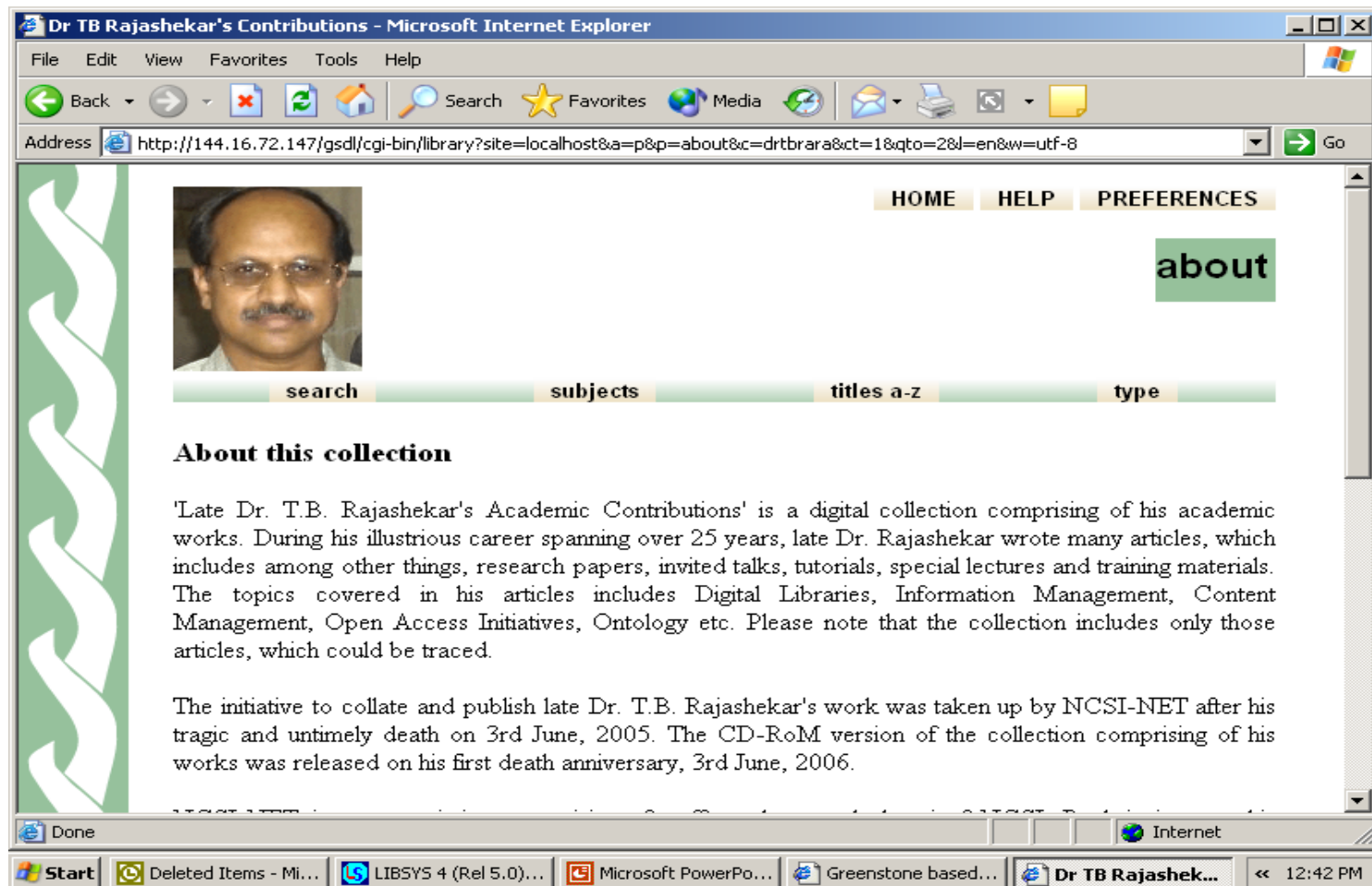
GSDL -Example DLs



GSDL -Example DLs



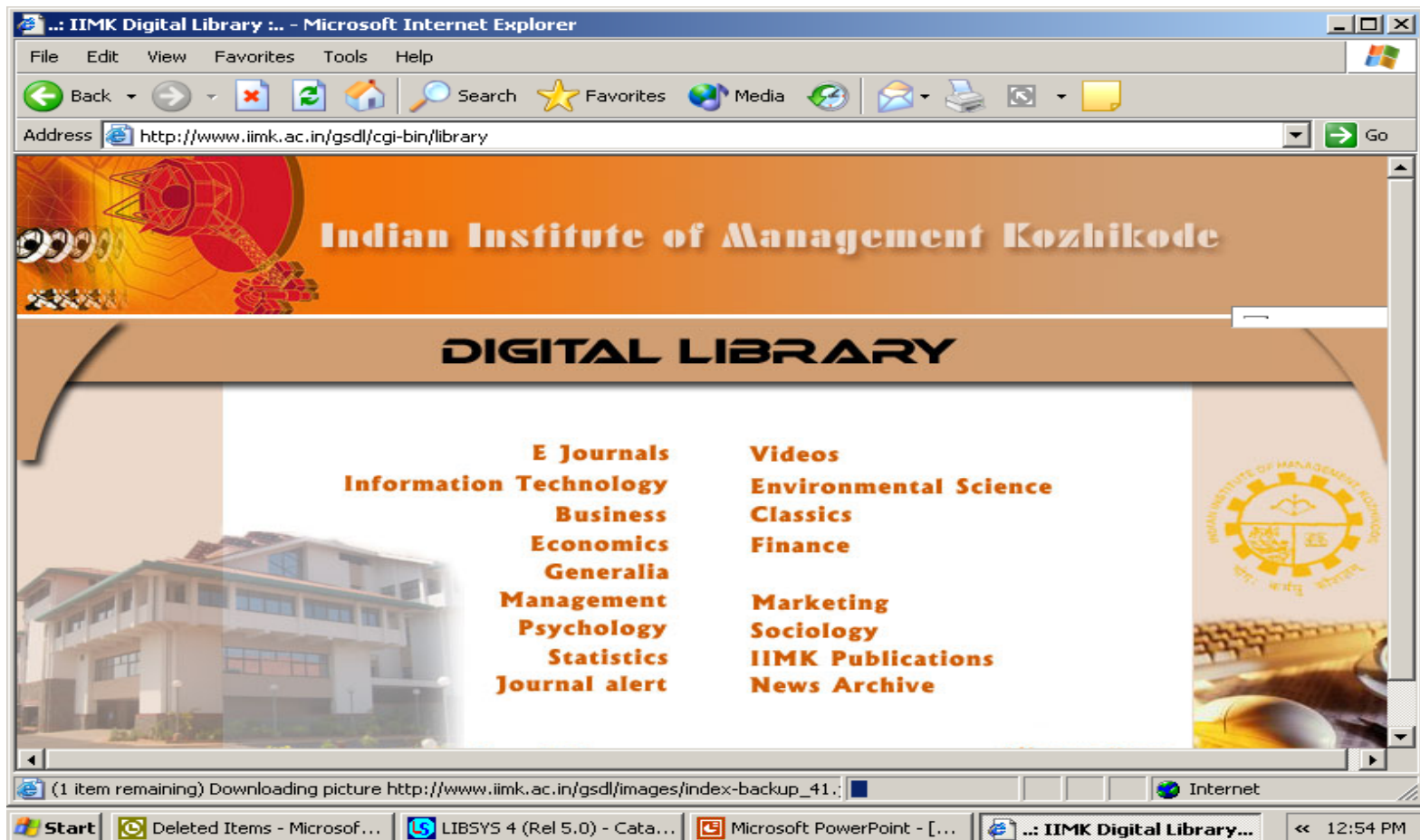
GSDL - Example DLs



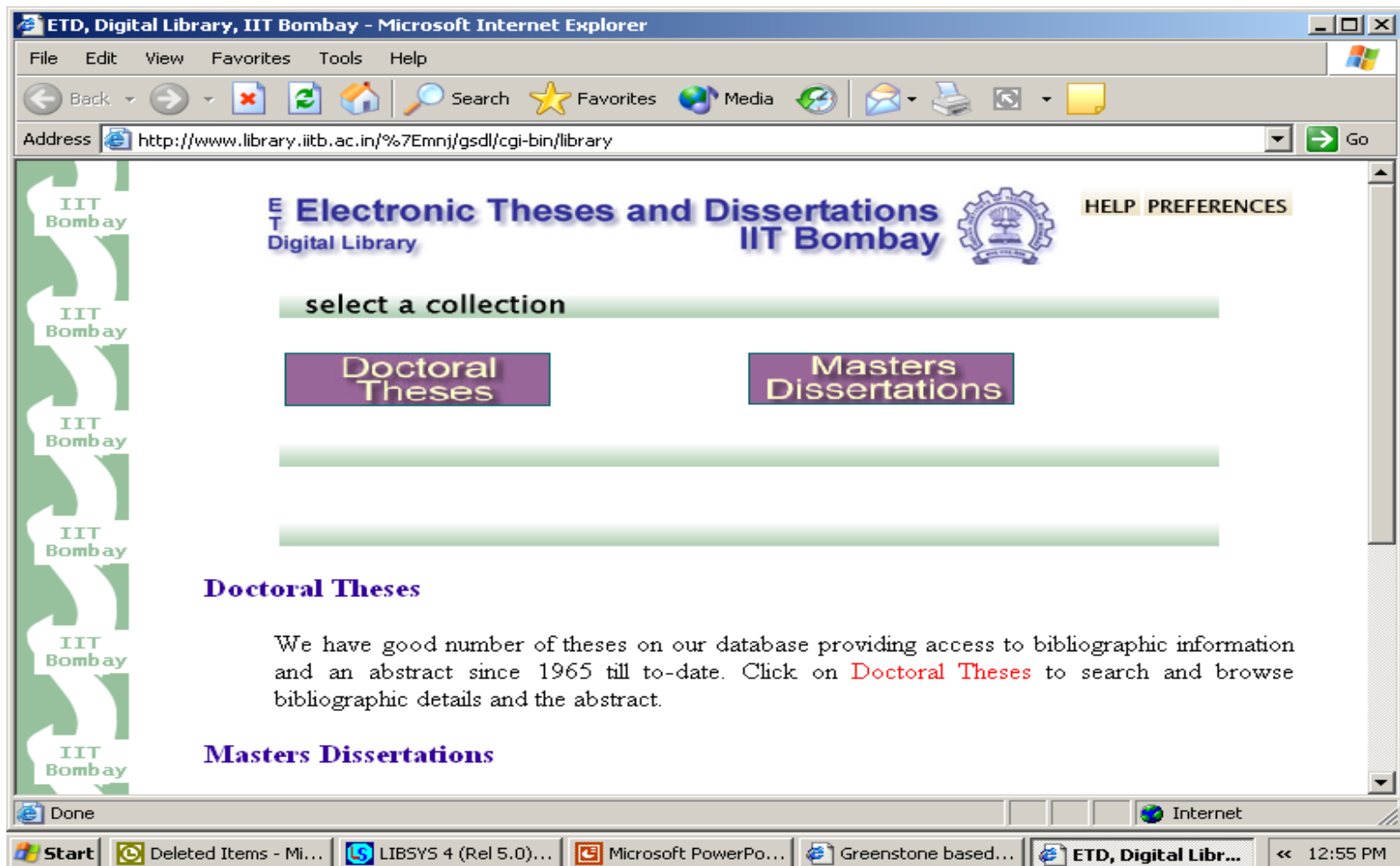
GSDL - Example DLs



GSDL -Example DLs



GSDL - Example DLs





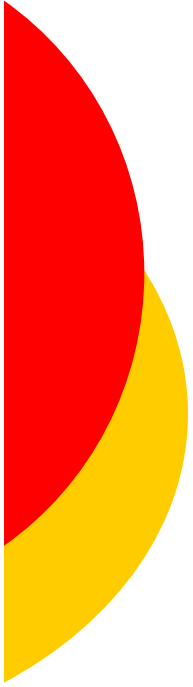
GSDL Examples...

- Could be yours...
- ... your library !



GSDL Demo

- Demo on Collection building...
 - Creating a simple multi format collection
 - Creating a simple image collection
 - Creating a CD-ROM of an independent collection



Discussion...

*Thank you
for your attention!*