

# **Greenstone:** **Open source Software** **for Building** **Digital Library Collections**



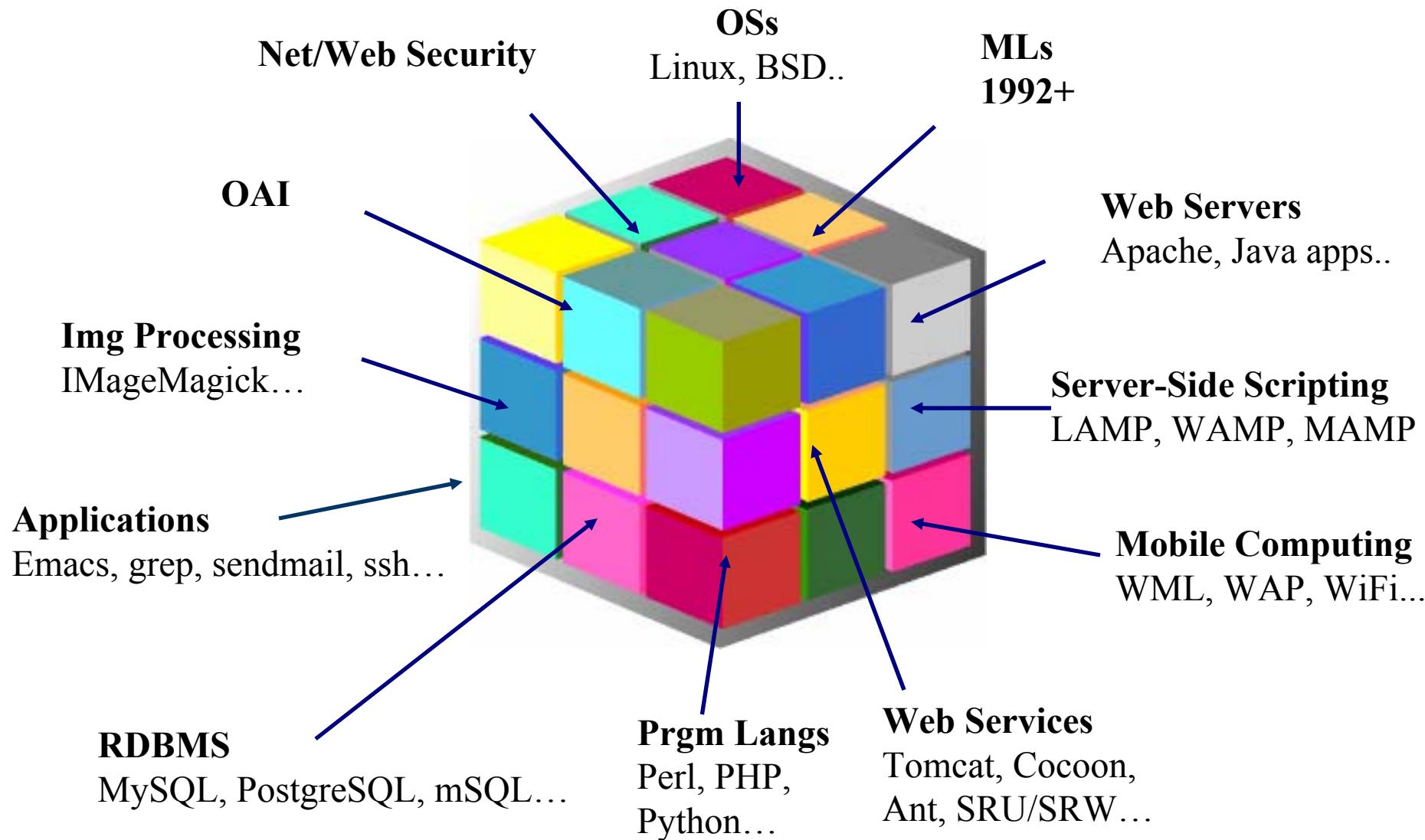
**Dr. M.G. Sreekumar**  
**UNESCO Coordinator, Greenstone Support, South Asia**  
**Librarian & Head, CDDL, IIM Kozhikode**

# **The Wonderful Open Source World**

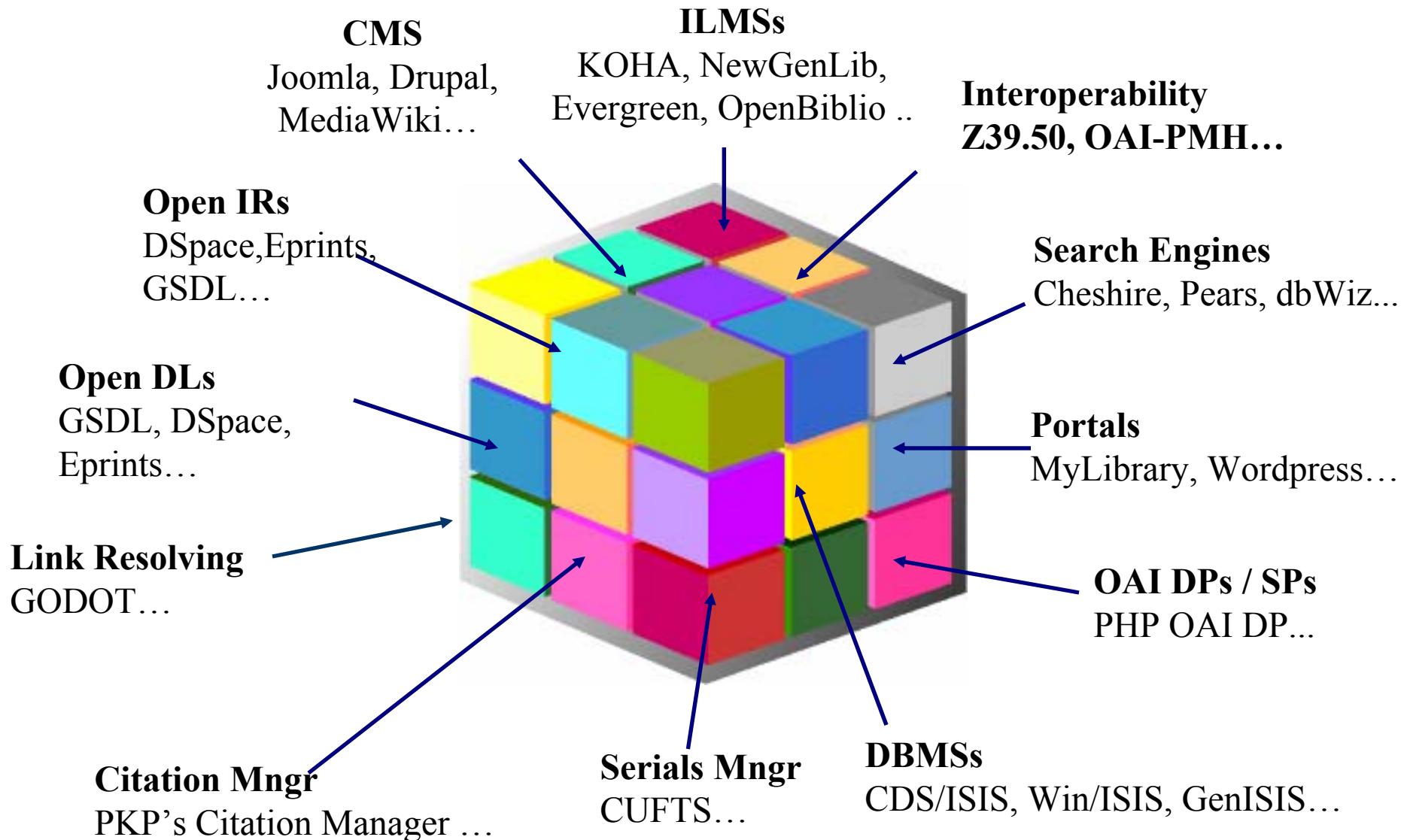
# What is open source software?

- 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.

# General Platforms / Applications



# IM/KM Platforms/Applications



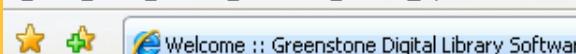
# Advantages and Disadvantages

## ***Advantages***

- Mostly issued under an internationally accepted License
- Access to source code *and ability and right to modify it*
- Right to redistribute modifications to benefit wider community
- Free
- Excellent support networks
- Large and enthusiastic user base

## ***Disadvantages***

- Limited or no accountability
- Informal and unaccountable support channels


[greenstone.org](#) [greenstone wiki](#) [greenstone trac](#) [planet greenstone](#)
[en](#) [fr](#) [ru](#) [es](#) [ro](#) [ar](#)

# greenstone digital library software

[Home](#) [Download](#) [Examples](#) [Wiki](#) [Support](#) [Developers](#)

- [Greenstone Blog](#)
- [Planet Greenstone](#)
- [Calendar](#)
- [Workshop Map](#)
- [\*\*Greenstone User \(& Developer\) Survey\*\*](#)

Wednesday 17th June, 2009  
Category: Greenstone2  
Please take the Greenstone User Survey! 10-15 minutes of your time can help us learn more about Greenstone software users and developers. With your help, we will gain a better understanding of Greenstone software and support resource use and satisfaction; in what ways Greenstone users interact with and use the software; and the organizational and [...]

Expanding the Southern African Greenstone Support Network

Tuesday 2nd June, 2009

## About Greenstone

Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. 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](#). It is [open-source](#), [multilingual](#) software, issued under the terms of the GNU General Public License. Read the [Greenstone Factsheet](#) for more information.

The aim of the Greenstone software is to empower users, particularly in universities, libraries, and other public service institutions, to build their own digital libraries. Digital libraries are radically reforming how information is disseminated and acquired in UNESCO's partner communities and institutions in the fields of education, science and culture around the world, and particularly in developing countries. We hope that this software will encourage the effective deployment of digital libraries to share information and place it in the public domain. Further information can be found in the book [How to build a digital library](#), authored by two of the group's members.

The complete Greenstone interface, and all documentation, is available in [English](#), [French](#), [Spanish](#), [Russian](#) and [Kazakh](#). Greenstone also has interfaces in many [other languages](#). We are looking for [volunteers](#) to add new language interfaces and help maintain existing ones.

### International Links:

[Greenstone support for Southern Africa](#)

[Greenstone support for South Asia](#)

[Grupo de Usuarios de Habla Hispana de Greenstone](#)

[Lista De Usuários de Língua Portuguesa do Greenstone](#)

[Blog de la communauté francophone](#)



# Greenstone, Libraries and Open Access

*"The aim of the software is to empower users, particularly in universities, libraries, and other public service institutions, to build their own digital libraries. Digital libraries are radically reforming how information is disseminated and acquired in UNESCO's partner communities and institutions in the fields of education, science and culture around the world, and particularly in developing countries. We hope that this software will encourage the effective deployment of digital libraries to share information and place it in the public domain."*

—from [www.greenstone.org](http://www.greenstone.org)

# 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!



# Humanity Development Library for sustainable development and basic human needs

- ❖ 160,000 pages
- ❖ 30,000 images
- ❖ 800 books
- ❖ 430 magazines
- ❖ 340 kg
- ❖ US\$20,000
- ❖ CD-ROM
- ❖ US\$1
- ❖ Fully searchable
- ❖ Win3.1x upward
- ❖ Stand-alone + intranet server
- ❖ Web browser user interface

***Global Help Project, Antwerp (+ UN agencies)***

# Features of Greenstone

- 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...

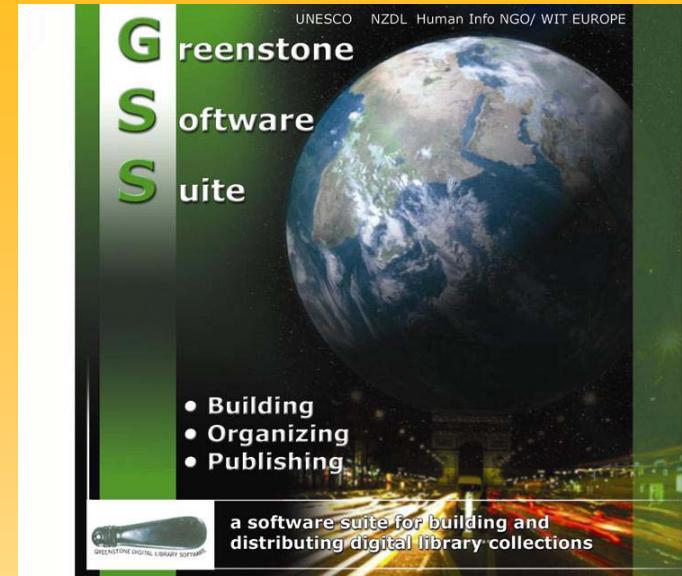
- Easy Installation
- Easy Maintenance
- Content Development (3 alternate ways)
- Predominantly GLI now - since (V. 2.41)
- Hierarchy Structure
- Interface Customization
  - Front Page Design, Header for the Digital Library, Collection Icon, Cover Images
- Collection Configuration (Collect.cfg) File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

# UNESCO: Distributing Greenstone DL software

## Sustainable development

*"Give a man a fish, feed him for a day  
Teach a man to fish, feed him for life"*

## Greenstone software on CD-ROM



- ❖ **GNU licensed**
- ❖ **Fully documented ... in English/French/Spanish/Russian**
- ❖ **Language interfaces: Arabic Chinese Czech ... Thai Turkish**
- ❖ **Unix/Windows/Mac OS-X**
- ❖ **Trivial to install**
- ❖ **GUI interface for gathering, enriching, building ...**
- ❖ **Serve collections on Web or write them to CD-ROM**
- ❖ **Document formats: HTML, Word, PDF, PS, plain text, e-mail**
- ❖ **Metadata formats: XML, DC, OAI, MARC, ...**

**download from <http://greenstone.org>**

# What we wanted

- ❖ “Collections” of digital material
- ❖ Individualized, depending on metadata etc
- ❖ Up to several GB of text ...
- ❖ ... + associated images, movies, whatever
- ❖ Fully searchable
- ❖ Served on WWW, or published on CD-ROM
- ❖ Multi-platform (Unix + all Windows + Mac)
- ❖ Multi-format documents *and* metadata
- ❖ Multi-lingual: documents *and* interfaces
- ❖ Multimedia
- ❖ Metadata: standard *and* non-standard

# Greenstone DL Software

- Access
  - Accessible via any Web browser
  - Server runs on Windows and Unix
  - Collections can be published on CD-ROM
- Searching/  
browsing
  - Full-text and fielded search
  - Flexible browsing facilities
  - Metadata-based (Dublin Core)
  - Collection-specific
  - Hierarchical phrase browsing supported
  - Creates all access structures automatically
- Extensible
  - Plugins — new document, metadata formats
  - Classifiers — new metadata browsers
- Multilingual
  - Documents *and* interfaces
  - Chinese, Arabic, Maori, Russian, etc (+ European, Indian...)
- Multimedia
  - Video, Audio...

# The power of open source: Greenstone uses ...

- ❖ **Ghostscript**      **Interpreter for Adobe Postscript documents  
(Postscript plugin)**
- ❖ **Kea**                **Keyphrase extraction program (to generate metadata)**
- ❖ **pdftohtml**          **Converter for PDF documents (PDF plugin)**
- ❖ **rtftohtml**          **Converter for RTF documents (RTF plugin)**
- ❖ **TextCat**             **Detects languages and document encodings**
- ❖ **wvWare**            **Converter for Word documents (Word plugin)**
- ❖ **XIhtml**             **Converter for Excel/Powerpoint documents  
(plugins)**
- ❖ **XML::Parser**        **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

## New York Botanical Garden

- o Rare 19th century works on American trees
- o Gorgeous full-color plates

© Histoire des arbres forestiers, Volume III (1...

HOME titles

search

Histoire des arbres forestiers, Volume III (1813)

Bignonia Catalpa. The Catalpa.

[blank] [plate] [217] 218 219 220 221

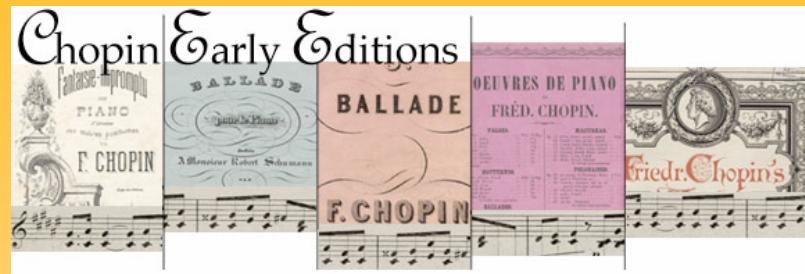
DETACH NO HIGH-LIGHTING  
LARGE IMAGE TEXT

The image shows a detailed botanical illustration of Bignonia Catalpa. It features a large, heart-shaped leaf with prominent veins. A cluster of white flowers with distinct purple stamens is shown in the upper left. In the lower right, there is a long, slender, reddish-brown seed pod (capsule) and a smaller, round fruit (capsule). The illustration is labeled 'BIGNONIA Catalpa' at the bottom.

BIGNONIA CATALPA.  
THE CATALPA.  
*Bignonia catalpa; folia simplicia, tereti, cordatis; paniculæ laxissimæ; floribus diandriis, tubis maculis purpureis et luteis adspersis; capsulae gestili, longi, tereti.*

Dans les Etats atlantiques, c'est sur les bords de la rivière Savannah, près d'Augusta, en Géorgie; et à l'Ouest des Appalaches, sur ceux de la Cumberland, entre les 35° et 39° de latitude, qu'on commence à trouver dans les forêts le Catalpa; mais au-delà de ces limites, vers le Sud, il est plus abondant, et toujours dans le voisinage des rivières qui se jettent dans le Mississippi, ou qui traversent la Floride Occidentale. On m'a assuré que cet arbre étoit surtout multiplié le long de la rivière Escambia ou Cooschua, à l'enbouchure de laquelle est située Pensacola. Ce qui est néanmoins assez remarquable, c'est que le Catalpa n'existe pas dans la partie basse des deux Carolines, de la Géorgie, non plus que dans la Floride Orientale, qui sont situées si près des endroits où il croît naturellement dans les bois, et où ceux qui y ont été plantés comme arbres d'ornement, devant les maisons, poussent avec une vigueur extraordinaire. Dans ces contrées Méridionales, le Catalpa parvient à une assez grande

# University of Chicago Library



© Allegro de concert : pour le piano : op. 46 /

The University of Chic  
LIBRAF

HELP PREFER



Allegro de concert : pour le piano : op. 46 /

[view score](#) [bibliographic description](#)

**Title:** Allegro de concert : pour le piano : op. 46 /

**Composer:** Chopin, Frédéric, 1810-1849.

**Dedicatee:** Mälller-Streicher, Friederike

**Publication Info.:** Leipzig :Chez Breitkopf & Härtel :Paris :Chez M. Schlesinger,[1841]

**Description:** 23 p. of music ; 34 cm.  
composée et dédiée à Mademoiselle F. Mälller par Fréd. Chopin.

**Notes:** Engraved. Price: 1 Thlr. 6 Ngr.  
Also available on the Internet.

**Subject:** Piano music.

**Plate No.:** 6651

**URI:** <http://pi.lib.uchicago.edu/1001/dig/chopin/017>

**Call No.:** M25.C54 A41

© Allegro de concert : pour le piano : op. 46 /...

Chopin|Early Editions

search titles uniform titles genres dedicatees

prev next

view score bibliographic description

Page 22

22

A screenshot of a digital edition of Chopin's 'Allegro de concert' showing a page of the score. The page is numbered 22 and features musical notation on two staves. The left staff is for the treble clef part, and the right staff is for the bass clef part. The score includes dynamic markings like 'forte' and 'piano' and performance instructions like 'riten.' and 'accel.'. A vertical ruler on the left indicates the page number and line numbers from 1 to 33. The interface has a blue header bar with the title and navigation links.

# New Zealand (Maori)

44

# KO TE KARERE O NUI TIRENI

rongo mai, Kahore he poaka? kanore  
he ringaringa hei mahi i etahi  
hei hoko i etahi kakahu? he tini rau  
o koutou mea hei hoko kakahu mo  
koutou.

## HE TUTAKINGA TANGATA.

Ka taea tawhiti te rengenga o Tawera, ka ngaro e tahi o nga whetu maori, ka oti te hura te kaha mangu o te po, ka kitea nga kapua mai te marangai (*te ita*) ka mea te tangata "ka takiri te ita" me reira ka ara kororia mai i runga i tona torona whero, te rangatira o te ao; na, ka

Ko "Pai-Maori" tetahi o tāhunga, he tangata poto, he moko kupu, tu-a kaumatua, he mawhatuapeko, i pafarahi te ihu, takatakanāga kanohi, e tokii ana nga papari matotoru ana nga ngutu, keokeo nga tukimata, a i hua nui nga wea, ne te finana katoa. Ko nga

A screenshot of a web browser window titled "Netscape: Results 1-4 for query: rotorua". The page header includes "File Edit View Go Communicator" and a logo for "THE NEW ZEALAND DIGITAL LIBRARY The University of Waikato". A navigation bar at the top right contains links for "HOME", "COLLECTIONS", "HELP", and "FEEDBACK". The main title "Māori Newspaper Collection" is prominently displayed. A search bar contains the query "rotorua". Below it, a "QUERY RESULTS" section shows four document entries: "Te Waka Mōni o Nui Tīreni, 21 Aug 1878, vol I #1, p 1", "Te Karere o Nui Tīreni, Māhi 1, 1843, vol II #3, p 9", "Te Karere o Nui Tīreni, Pepuni 1, 1844, vol III #2, p 11", and "Te Puke ki Hikarangi, 21 Dec 1897, vol I #1, p 1". A large watermark of the letter 'T' is visible on the right side of the page.

Netscape: Document Text

File Edit View Go Communicator

[View the image of this page.](#)

**HOHAI A TARAKAWA, o Pohirea.**  
**Rotorua**—Kua tae mai atu reatawhau rau He nei te motu kia kura koutou Whekare pā ki te Aukaranga, e te Waka Mana, me te koutou ki te manehuki. Kauri roia he oranga e hōmai ana e 'te Kowenatanga ki tenei Waka Mana nei; na kōrero ikiwai mani e hōmai ana e nōgai iwi o te motu te whakanga e tūnau a te māori e.

māhia ai rānei. He mutu te tauwhai o te iwi Pakeha e te motu nei ki te ewhina i a metou ka māngai ki tenei māhi; o, e mohio ana metou

**HOHAI A TARAKAWA, of Pohirea.**  
**-Rotorua**—Both of your letters have been received, and we are much gratified with the great interest evinced by you and your people in the re-establishment of the *Waka Maori*. The new *Waka* receives no support from the Government; its continuance, therefore, depends upon the amount of support forwarded to it by the public. We are receiving a very generous amount of support from the European portion of the population of the Colony, and we have no doubt that the Native people will not show themselves backward in coming forward in amount of a sum like £1000 per month.

Netscape: Document Text

Go Communicator Help

*T. M. Hockin.*

# Te Waka Maori

## O NIU TIRANI.

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TE TIEA, KO TE PONO, KO TE AROHA.

TURANGA, WENEREI, AKUHATA 21, 1878. [No. 1.]

NOTICES AND ANSWERS TO CORRESPONDENTS.	
Subscriptions received:—	
1878.—Mrs. Umbridge, Wellington	£ 13 0
—Mr. Ferguson, Takapau Hotel, Rotorua	0 13 0
—Albion	0 13 0
—Concord, Esq., Solicitor, Napier	1 0 0
	£ 6 0

A, o Pohirea, Rotorua.—Kua tae mai anō te motu kia kura ki te koutou whakarau e te *Waka Maori*, me te koutou ki kia rawa he oranga e hōmai ana e 'te *Waka* hou nei; na kōrero iki ega mani e te motu te tilanganui e tūnau a te māori, e ki a whānau o te iwi Pakeha e te motu nei ki runga ki tenei māhi; a, e nōgai iwi ake e iwi Maori ki te manuhiri i tenei taonga mo ratou ake angā te take i mahia nei ana matou ki te kōrero mo tenei kōrero

Peking University Rubbings Collection: Search - Microsoft Internet Explorer

File Edit View Go Favorites Help

主页 帮助 选项

查询



按整个记录  查询包含  部  检索词的记录

结果

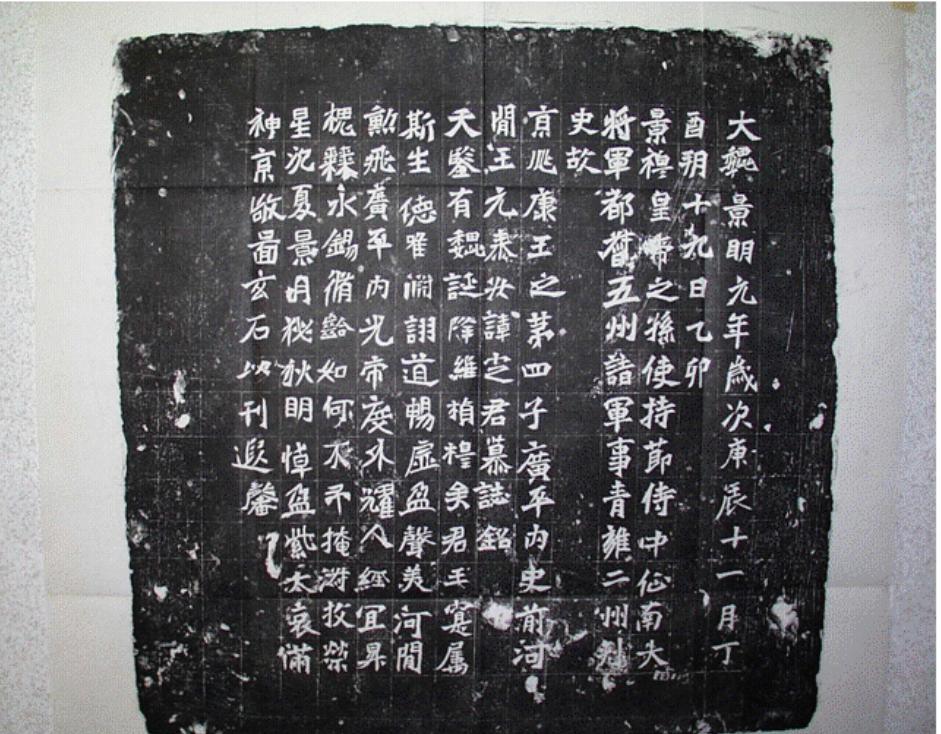
词频: 北: 111  
20匹配提问的记录

- [元定墓志](#)
- [元海墓志](#)
- [元文墓志](#)
- [元恩墓志](#)
- [胡明相墓志](#)
- [元平墓志](#)
- [元引墓志](#)
- [王僧男墓志](#)
- [王遗女墓志](#)
- [张安姬墓志](#)

Peking University Rubbings Collection: Document text - Microsoft Internet Explorer

File Edit View Go Favorites Help

浏览低分辨率影像



# Chinese documents (pictures of text) + Chinese interface

Peking University Library

# Chinese (Chinese & English interfaces)

Microsoft Internet Explorer

File Edit View Favorites Tools Help

search



DETACH NO HIGH-LIGHTING EXPAND TEXT



DETACH NO HIGH-LIGHTING EXPAND TEXT

## 红楼梦

- 第一回 甄士风尘怀闺秀
- 第二回 贾夫演说荣国府
- 第三回 贾雨抛父进京都
- 第四回 薄命女芦案
- 第五回 游幻境指迷十二钗 饮仙醪 演曲红楼梦
- 第六回 贾宝玉初试云雨情 刘老老一进荣国府

??? - Netscape

File Edit View Go Window Help

主页 帮助 选项 题名 a-z

查询



DETACH NO HIGH-LIGHTING EXPAND TEXT

## 金瓶梅

- 第一回 哥嫂 西门庆热结十弟兄 武二郎冷遇亲
- 第二回 俏潘娘帘下勾情 老王婆茶坊说技
- 第三回 定挨光王婆受贿 设圈套浪子私挑
- 第四回 赴巫山潘氏幽欢 闹茶坊郭哥义
- 第五回 捉奸情郭哥定计 饮鸩药武大遭殃
- 第六回 何九受贿瞒天 王婆帮闲遇雨
- 第七回 薛媒婆说娶孟三儿 杨姑娘气骂张
- 第八回 盼情郎佳人占鬼卦 烧夫灵和尚听

诗曰：

璇闺绣户斜光入，千金女儿倚门立。  
横波美目虽后来，罗袜遥遥不相及。  
闻道今年初避人，珊瑚镜挂长随身。  
愿得侍儿为道意，后堂罗帐一相亲。

话说王婆拿银子出门，便向妇人满面堆下笑来，说道：“老身去那街上取瓶儿来，有劳娘子相待官人坐一坐。壶里有酒，没便再筛两盏儿，且和大官人吃着，老身直去县东街，那里有好酒买一瓶来，有好一歇儿耽搁。”妇人听了说：“干娘休要去，奴酒不多用了。”婆子便道：“阿呀！娘子，大官人又不是别人，没事相陪吃一盏儿，怕怎的！”妇人口里说“不用了”坐着却不动身。婆子一面把门拽上，用索儿拴了，倒关他二人在屋里。当路坐了，一头续着锁。

Document: Done

Classic Chinese literature

# Arabic (Arabic & English interfaces)

## Famous mosques



<http://www.nzdl.org/fast-cgi-bin/library?e=q-Oarabic--00-prompt-1--1l--1-en-50---20-nav-ÇáÓáØÇä+ - ...>

File Edit View Favorites Tools Help

search

HOME HELP PREFERENCES titles a-z

### مدرسة وضريح وبيمارستان السلطان المنصور قلاون

تم انشاء هذه المجموعة بين عامى 683-684هجرى / 1284-1285ميلادى وتوجد بشارع المعز لدين الله الفاطمى بمدينة القاهرة

#### وصف الجامع

اهم جزء فى هذه المجموعة القبة الّتى تعلو الضريح وتكون من قاعدة مئمنة مكونة من أربع دعامات مربعة بها أربعة أعمدة رخامية مكسوة من الخارج بالرخام الدقيق المطعم بالصلف وكل من الدعامات والأعمدة تحمل عقوداً مدببة تعلوها رقبة مئمنة ويوجد بكل ضلع منها نافذة ويعلو الرقبة قبة مستديرة والواجهة الخارجية للمجموعة من الحجر المنثور الأحمر والأبيض على شكل مربعات والمئنة تكون من ثلاثة طوابق الأول والثانى يأخذان شكل مربع والطوى مستدير وتم تجديد المئنة على يد الناصر محمد بن قلاون عام 1303م ميلادى وتوجد المدرسة المنصورية امام باب القبة وتم تجديد الإيوان الشرقي بهذه المدرسة بين عامي 1916-1919م ويتكون من ثلاثة أروقة اكبرها الأوسط والأسقف محمول على أعمدة رخامية تعلوها عقود حيث هي والشبابيك المستديرة فوقها بالزخارف الجصية اما البيمارستان لم يتبقى

A photograph of the Sultan Qalawun Complex in Cairo, Egypt. The image shows the outer facade of the complex, featuring multiple domes and intricate stone carvings. A minaret is visible on the left side.

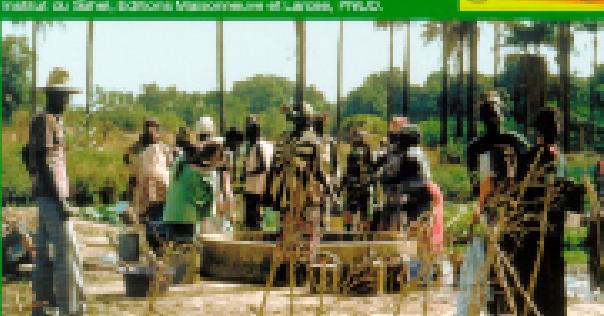
# French

## UNESCO, Paris

 **SAHEL point DOC**  
ANTHOLOGIE du DÉVELOPPEMENT au SAHEL

Agriculture, pêche, élevage  
Environnement,  
Développement social et humain  
Coopération, intégrations, marchés  
Culture, information, communication

Documents issus par : AFD/FAO, Banque mondiale,  
Comité Sénégal, Club du Sahel, DIA, FAO, GRET,  
Institut du Sahel, Nations Unies pour l'enfance, PNUD.



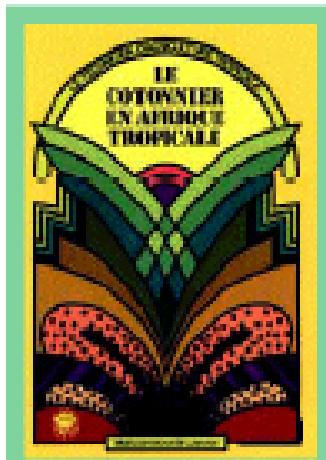
UNESCO SAHEL point DOC - Page d'accueil - Webscape  
File Edit View Go Commandos Help

 **SAHEL point DOC**  
ANTHOLOGIE du DÉVELOPPEMENT au SAHEL

AIDE PRÉFÉRENCES  
rechercher  sujets  titres a-z  organisations  comment 

Rechercher les :  contenant  au moins un  mot(s)

**UNESCO - SAHEL point DOC - CD-ROM 1.0**



Cliquez une couverture ... pour accéder au livre

Le Projet de la Collection PUBLICA de l'UNESCO

**AIDE** Pour de l'aide à tout moment, activer le bouton "Aide".

Il y a cinq manières d'accéder aux informations contenues dans ce CD-ROM :

- rechercher des mots particuliers ou une phrase
- accéder aux publications par sujet
- accéder aux publications par titre dans l'ordre alphabétique
- accéder aux publications par organisation
- accéder aux publications par le bouton

# Collections: on the Web

[nzdl.org](http://nzdl.org)

(demo, not  
service)

Greenstone Digital Library - Netscape

File Edit View Go Window Help

The New Zealand Digital Library

*The University of Waikato*

select a collection

arabic collection

project gutenberg

virtual disaster library

BBC ONLINE

the hci bibliography

the computists' weekly

Collection on Critical Global Issues

humanity development library

Bibliotheque pour le Developpement

indigenous

nzdl.org

This screenshot shows the Greenstone Digital Library interface running in Netscape. The title bar reads "Greenstone Digital Library - Netscape". The menu bar includes "File", "Edit", "View", "Go", "Window", and "Help". The main header features "THE NEW ZEALAND DIGITAL LIBRARY" in large letters, with "The University of Waikato" below it. A banner at the top right shows a collage of text snippets. Below the header is a green bar labeled "select a collection". There are nine collection thumbnails arranged in a grid:

- arabic collection: thumbnail of a traditional Arabic manuscript.
- project gutenberg: thumbnail of a typewriter.
- virtual disaster library: thumbnail of a map of New Zealand.
- BBC ONLINE: thumbnail of the BBC logo.
- the hci bibliography: thumbnail of a circular academic logo.
- the computists' weekly: thumbnail of a computer monitor displaying a news article.
- Collection on Critical Global Issues: thumbnail of a globe with political boundaries.
- humanity development library: thumbnail of a person working in a field.
- Bibliotheque pour le Developpement: thumbnail of a person working in a field.

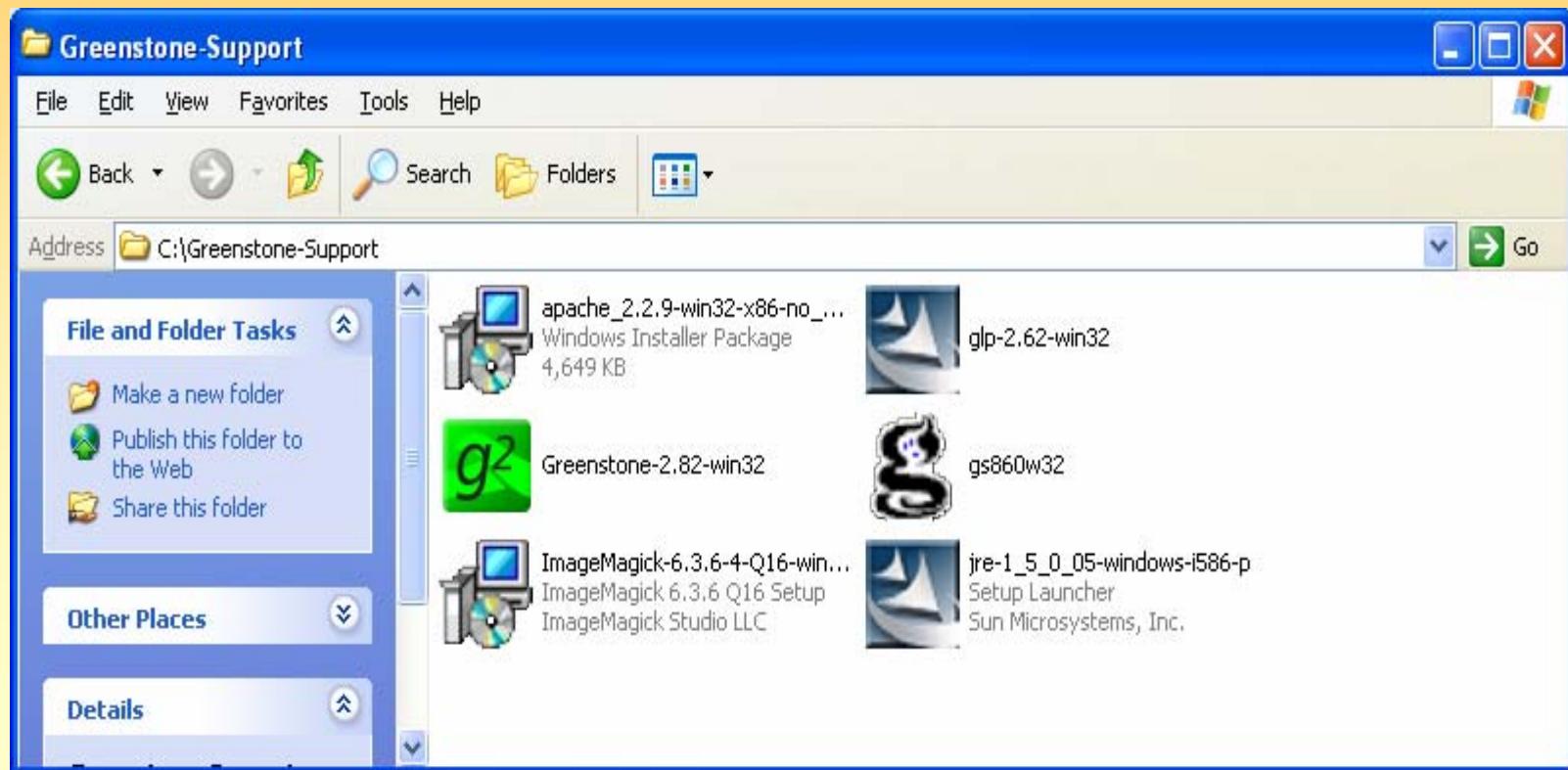
At the bottom, there are two more thumbnails partially visible: one for "indigenous" (showing a person) and one for "nzdl.org" (showing a person).

# **Greenstone & Associated Softwares**

- **Greenstone 2.82 (<http://www.greenstone.org>)**
- **Java Runtime Environment (JRE)  
(<http://java.sun.com>)**
- **ImageMagick (<http://www.imagemagick.org>)**
- **Ghostscript (<http://www.cs.wis.edu/~ghost/>)**
- **Module for CD-ROM Publishing  
(<http://www.greenstone.org>)**
- **Additional Language Pack (<http://www.greenstone.org>)**

# Installing Greenstone

## Softwares/Files Required



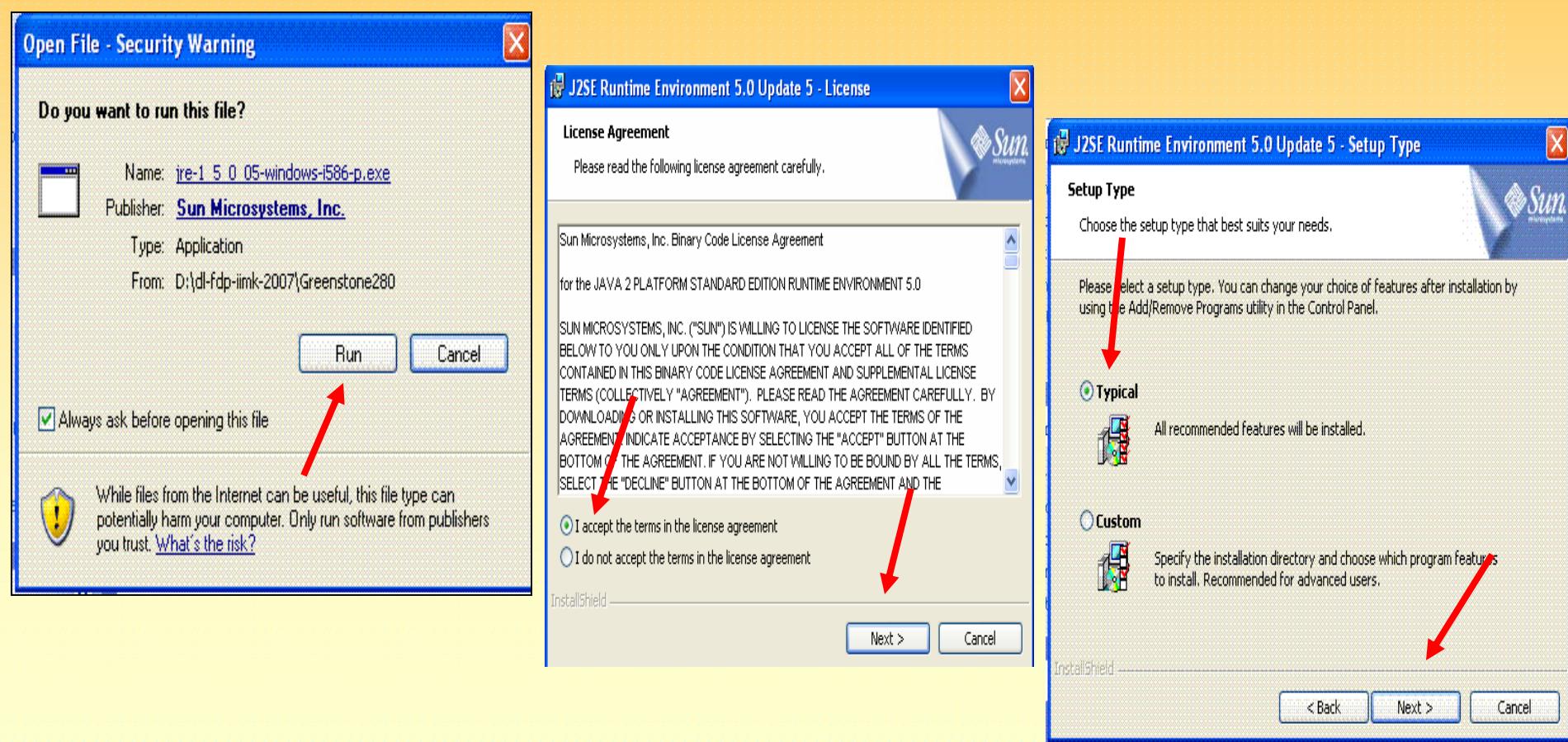
# Sequence of Installation

1. **Java Runtime Environment (JRE)**  
(<http://java.sun.com>)
2. **ImageMagick** (<http://www.imagemagick.org>)
3. **Ghostscript** (<http://www.cs.wis.edu/~ghost/>)
4. **Greenstone 2.82** (<http://www.greenstone.org>)
5. **Module for CD-ROM Publishing**  
(<http://www.greenstone.org>)
6. **Additional Language Pack**  
(<http://www.greenstone.org>)

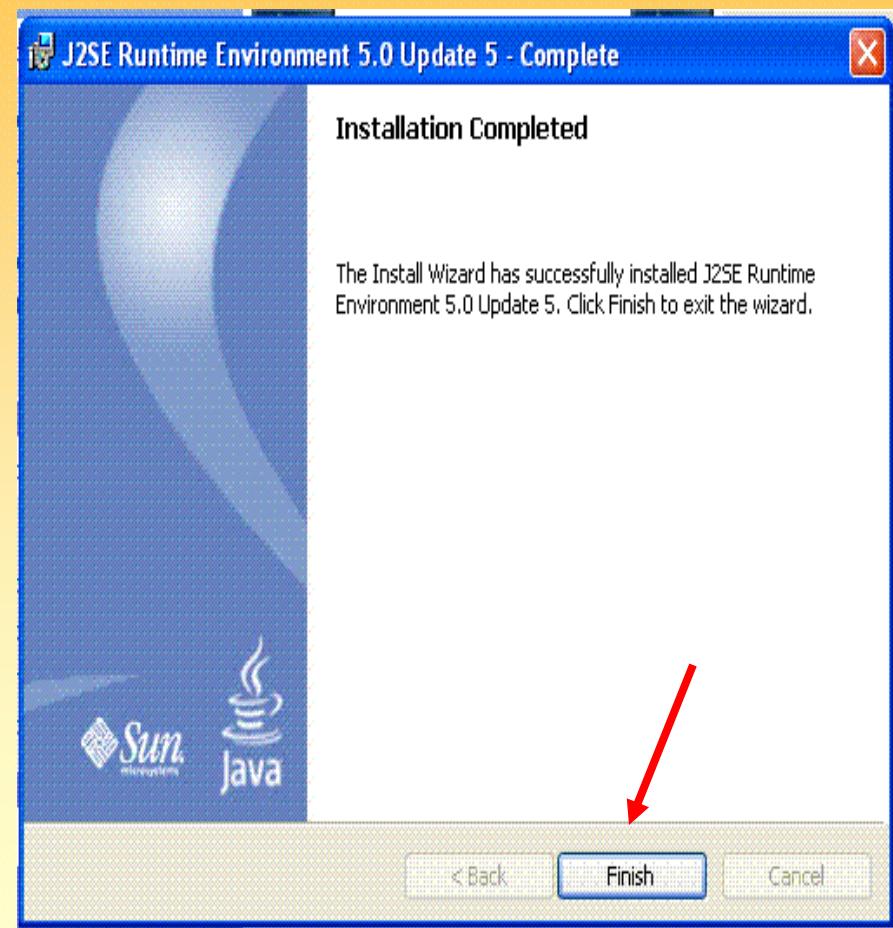
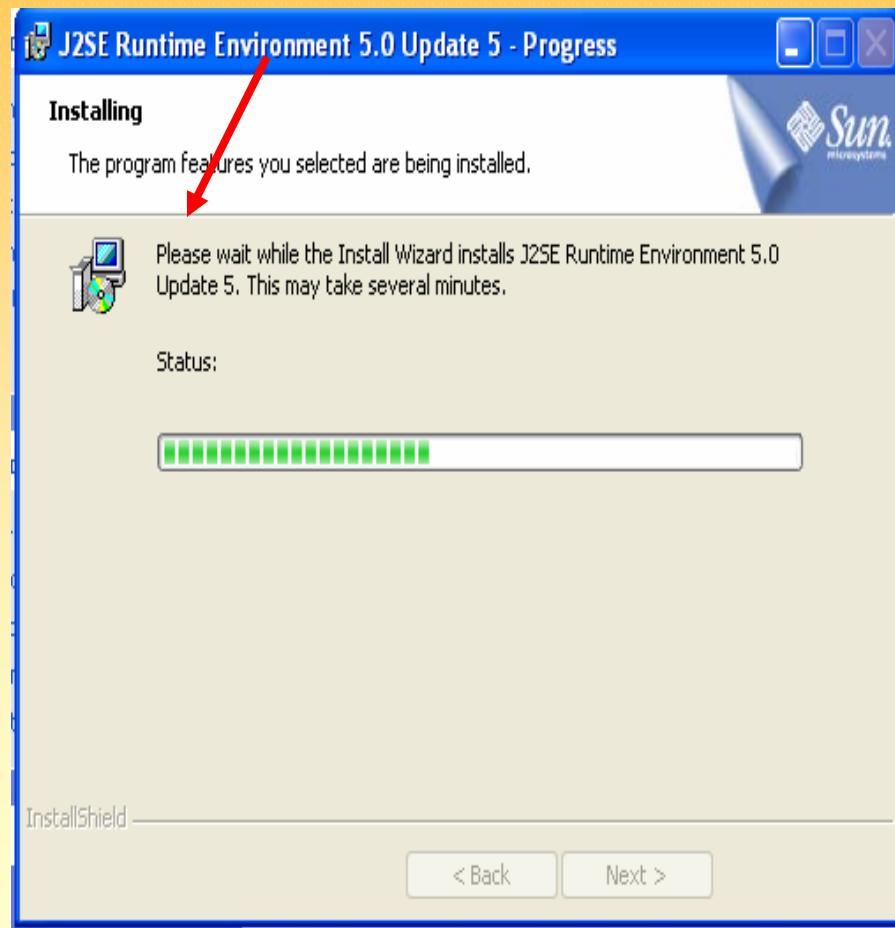
# Installing...Java Runtime Environment (JRE)

## Step 1. Check and Remove any Java Presence

## Step 2. Locate the jre-1\_5\_0\_05-windows-i586-p and Click to Install



# Installing...Java Runtime Environment (JRE)



# **Greenstone**

# **Windows Installation**

Version 2.82





# Greenstone2

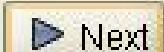
## Digital Library Software

Extracting JAR installer

## Greenstone 2.81rc installer

Greenstone2 is software for building and sharing digital libraries.

It is recommended that you uninstall any previous installations of Greenstone2 before running this installer.

 Cancel Back Next

## 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  
software--to 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

 Reject

 Back

 Accept

## Installation Folder

Select an installation folder

Browse...CancelBackNext



## Installation Folder

Select an installation folder

C:\Program Files\Greenstone

Browse...



Cancel

Back

Next



## Components

Please choose the components you wish to install

Core System 179 MB



Start Menu Shortcuts ~10 KB



ImageMagick with JPEG2000 (6.4.3) 11 MB



GhostScript (8.63) 10 MB



Cancel

Back

Next

## Please set the Admin Password

In order to access certain parts of the Greenstone interface you need a password. A user with the username 'admin' will be created for you with the password you provide. The password must be between 3 and 20 characters long.

Admin Password

admin

 Cancel

 Back

 Next

## Installation progress

 Show Details

Click Install to continue

 Cancel Back Install

## Installation progress

 Show Details

Click Install to continue

Output

Errors

 Cancel Back Install

## 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:

Installing Core System:

```
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

Back

Install

## Installation progress

Show Details

Installing Core System



- Looking For Previous Installation
- Installing Core System
- Installing Start Menu Shortcuts
- Installing ImageMagick
- Installing Ghostscript

Cancel

Back

Install

## Complete

 Show Details   Install Finished

- Looking For Previous Installation
- Installing Core System
- Installing Start Menu Shortcut
- Installing ImageMagick
- Installing Ghostscript



 Cancel

 Back

 Exit

## Complete

 Show Details   Install Finished



- Looking For Previous Installation
- Installing Core System
- Installing Start Menu Shortcuts
- Installing ImageMagick
- Installing Ghostscript

 Cancel

 Back

 Exit

# Greenstone's Interfaces

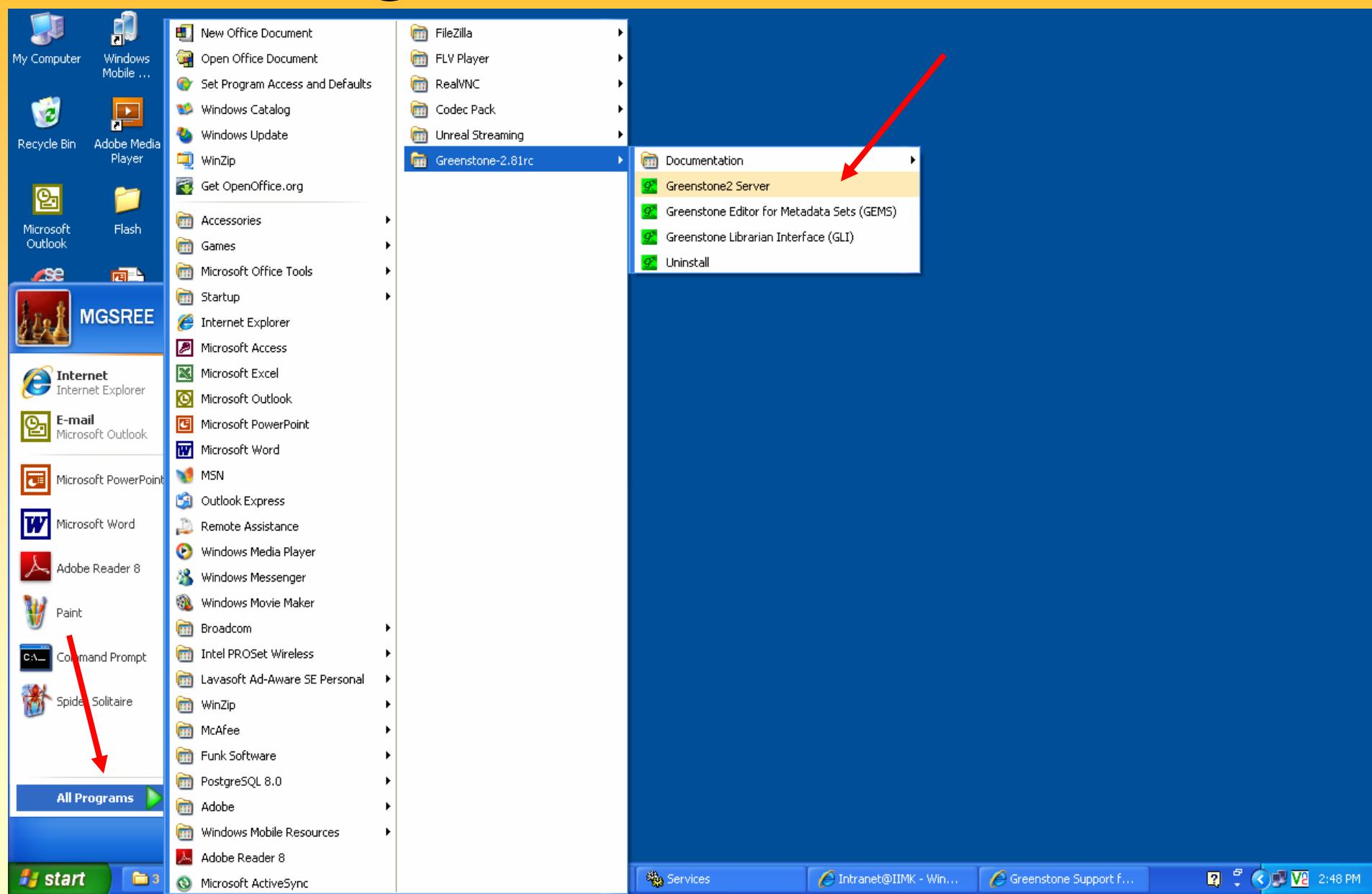
## Digital Library (User + Librarian)

The screenshot shows the Greenstone Digital Library Software running in Microsoft Internet Explorer. The title bar reads "Greenstone Digital Library Software - Windows Internet Explorer". The main content area displays the "greenstone digital library software" logo and a "select a collection" section. Under "Collection", "Greenstone demo" is highlighted as a "multi-format collection". Other options include "Audios", "Image-Collection", "isis-to-greenstone", and "mv-references". Below this, there are several informational boxes: "The Librarian Interface" (describes creating collections), "Administration Page" (describes adding users and system info), "About Greenstone" (describes the project's origin), and "Greenstone Documentation" (links to manuals). A paragraph at the bottom explains the software's purpose: "Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. 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. It is open-source software, available from <http://greenstone.org> under the terms of the GNU General Public License." The taskbar at the bottom shows various open windows and icons.

## Librarian Interface (GLI)

The screenshot shows the Greenstone Librarian Interface 2.80 running in Microsoft Internet Explorer. The title bar reads "Greenstone Librarian Interface 2.80 Mode: Librarian Collection: Image-Collection (imagecol)". The interface has a toolbar with buttons for Download, Gather, Enrich, Design, Create, and Format. The left sidebar is titled "Workspace" and lists "Documents in Greenstone Collections", "Local Filespace", "Home Folder (mgsree)", and "Downloaded Files". The main area is titled "Collection" and shows a single folder named "images". At the bottom, there are two tabs: "Show Files All Files" and "No action requested". The taskbar at the bottom shows various open windows and icons.

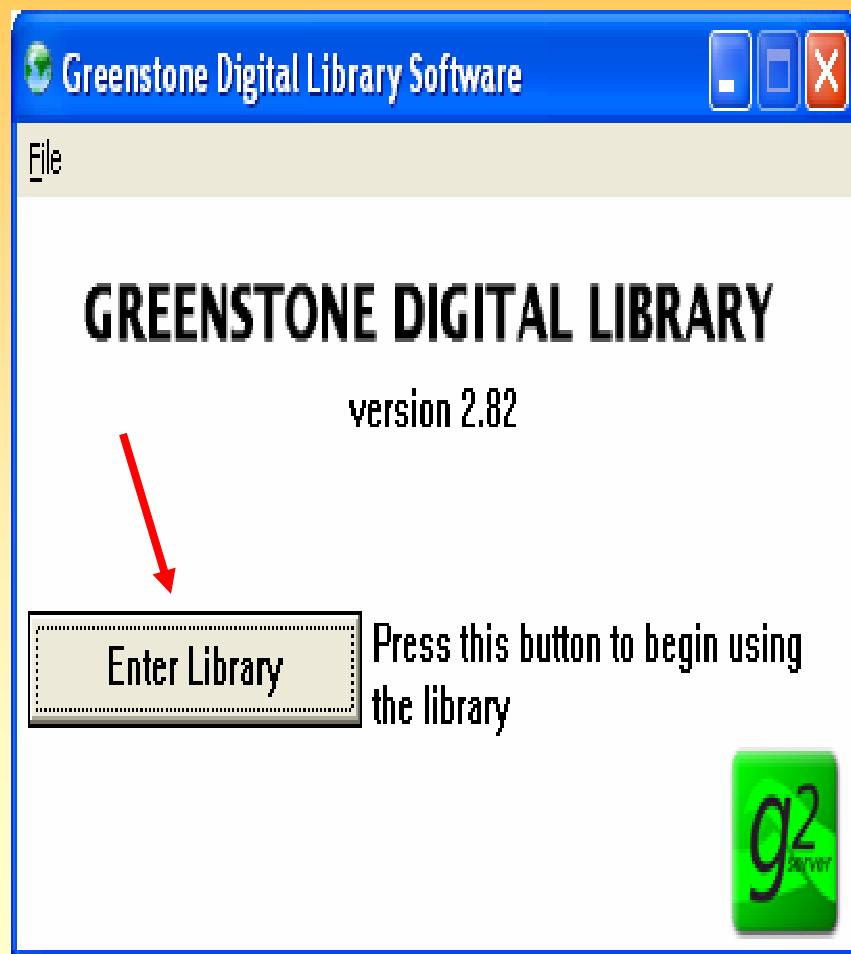
# Invoking Greenstone on Browser



# Opening Greenstone on Browser

Digital Library Server

Greenstone Digital Library



The screenshot shows the Greenstone Digital Library Software running within a Windows Internet Explorer browser window. The title bar reads "Greenstone Digital Library Software - Windows Internet Explorer". The main content area displays the "greenstone digital library software" logo and a "select a collection" dropdown menu. The "Greenstone demo" option is highlighted. Below the menu, there are three links: "The Librarian Interface", "About Greenstone", and "Greenstone Documentation". A detailed description of Greenstone follows, mentioning its purpose as software for building and distributing digital library collections, its production by the New Zealand Digital Library Project at the University of Waikato, and its open-source nature under the GNU General Public License. At the bottom, it notes the software's development and distribution by three parties, and credits the "New Zealand Digital Library Project at the University of Waikato".

# Opening Greenstone on Browser

## Greenstone Digital Library

Greenstone Digital Library Software - Windows Internet Explorer

File Edit View Favorites Tools Help

Google

http://172.20.2.209/gSDL?uq=5810312

ABC Check AutoLink AutoFill Send to...

Settings

Greenstone Support for Sout... Greenstone Digital Librar...

Page Tools

HELP PREFERENCES

### greenstone digital library software

## Collections

select a collection

**Greenstone demo**

The Librarian Interface Helps you create new collections, modify or add to existing ones, or delete collections

About Greenstone Tells you about the Greenstone software and the New Zealand Digital Library Project where it originated

Greenstone Documentation Greenstone manuals

Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. 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**. It is open-source software, available from <http://greenstone.org> under the terms of the GNU General Public License.

The aim of the software is to empower users, particularly in universities, libraries, and other public service institutions, to build their own digital libraries. Digital libraries are radically reforming how information is disseminated and acquired in UNESCO's partner communities and institutions in the fields of education, science and culture around the world, and particularly in developing countries. We hope that this software will encourage the effective deployment of digital libraries to share information and place it in the public domain.

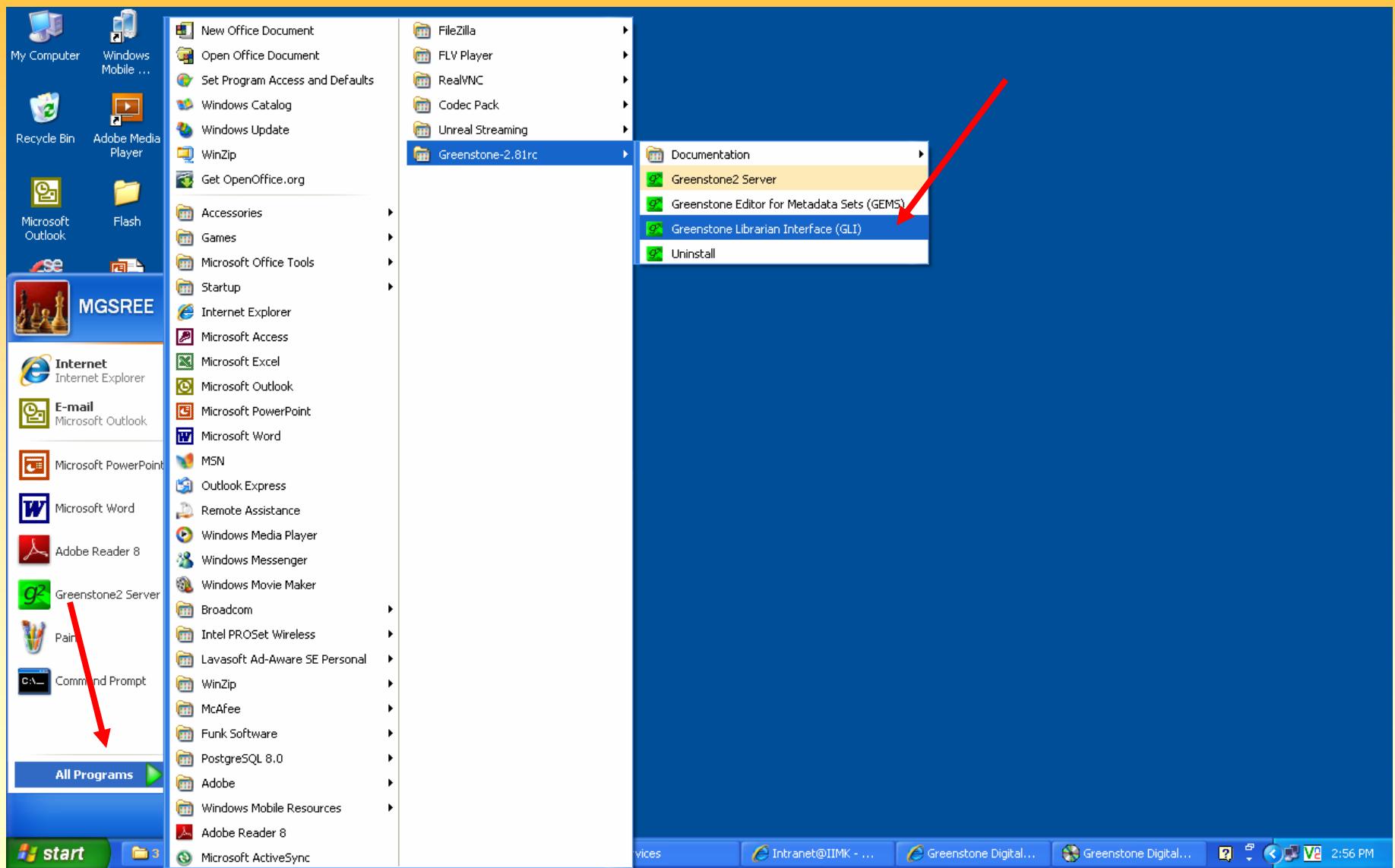
This software is developed and distributed as an international cooperative effort established in August 2000 among three parties.

**New Zealand Digital Library Project at the University of Waikato**

Greenstone software grew out of this project, and this initiative has been endorsed by the Communication Sub-Commission of the New Zealand National Commission for UNESCO as part of New Zealand's contribution to UNESCO's programme.

Internet 100%

# Opening the GLI



# Opening the GLI



```
Greenstone Librarian Interface (GLI)
C:\Program Files\Greenstone2\packages\jre\bin\java.exe

Greenstone Major Version:
2

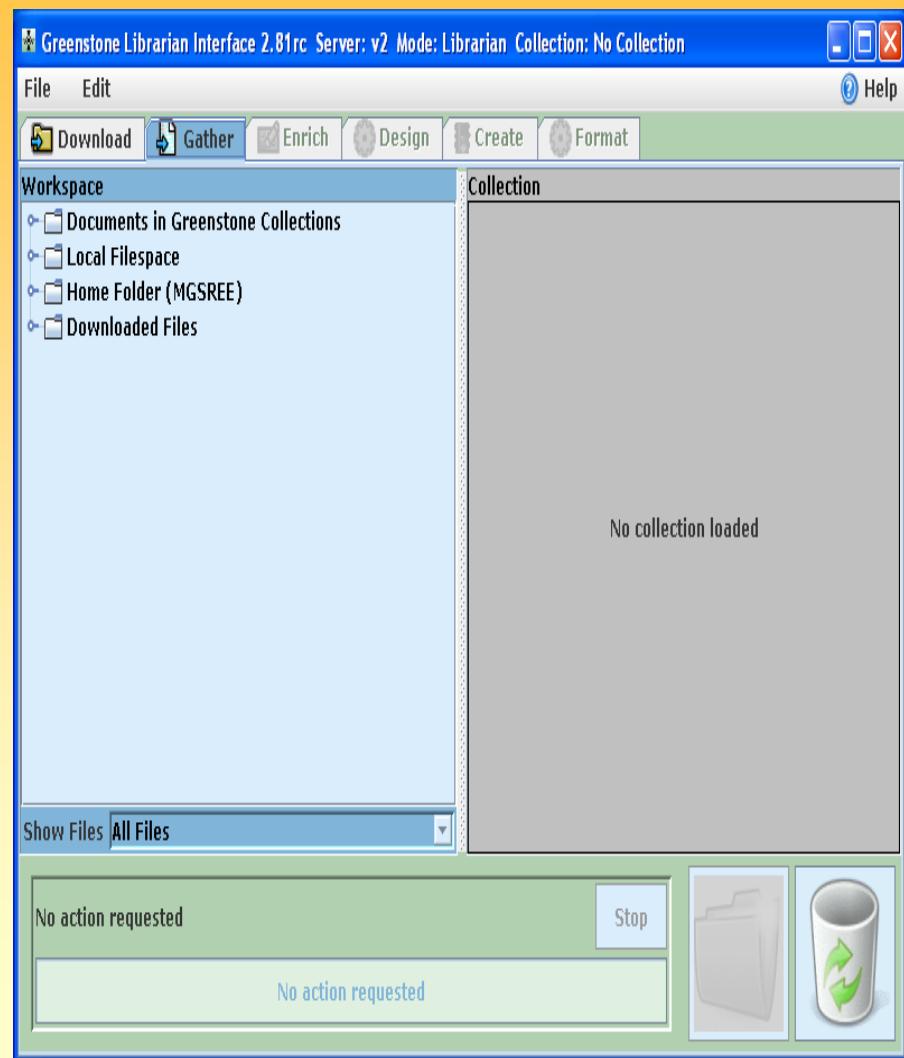
GSDLHOME:
C:\Program Files\Greenstone2

GhostScript bundled with Greenstone will be used, if you wish to use the version
installed on your system (if any) please go to C:\Program Files\Greenstone2\bin
\windows and rename the folder called ghostscript to something else.

ImageMagick bundled with Greenstone will be used, if you wish to use the version
installed on your system (if any) please go to C:\Program Files\Greenstone2\bin
\windows and rename the folder called imagemagick to something else.

Running the Greenstone Librarian Interface...
Version: 2.81rc

User cache dir: C:\Documents and Settings\MGSREE\Application Data\Greenstone\GLI
\cache\
```



# GLI



Greenstone Librarian Interface 2.81rc Server: v2 Mode: Librarian Collection: No Collection

- □ × ? Help

File Edit

Download Gather Enrich Design Create Format

Workspace

- Documents in Greenstone Collections
- Local Filespace
- Home Folder (MGSREE)
- Downloaded Files

Collection

No collection loaded

Show Files All Files

No action requested

No action requested

Stop

Folder icon

Recycle bin icon

This screenshot shows the Greenstone Librarian Interface (GLI) version 2.81rc. The title bar indicates the mode is 'Librarian' and there is 'No Collection' loaded. The interface has several tabs at the top: Download, Gather (which is selected), Enrich, Design, Create, and Format. The left panel, titled 'Workspace', contains a tree view with four main categories: 'Documents in Greenstone Collections', 'Local Filespace', 'Home Folder (MGSREE)', and 'Downloaded Files'. The right panel, titled 'Collection', displays the message 'No collection loaded'. At the bottom, there's a status bar with 'Show Files' set to 'All Files', and two message boxes both stating 'No action requested'. A 'Stop' button is also present at the bottom.

# 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

# GLI

- ❖ Building collections
- ❖ Interactive Java program
- ❖ Runs on anything
- ❖ Build a collection on the computer you are on
- ❖ ... plus new applet version
- ❖ Includes metadata editor



- ❖ Caveat: cannot deal with such huge collections as Greenstone can (particularly of metadata)

- Invoke GLI: build a small collection of HTML files
- Gather
- Create
- Look at extracted metadata
- Set up shortcut in the Librarian interface

# Collection Building...

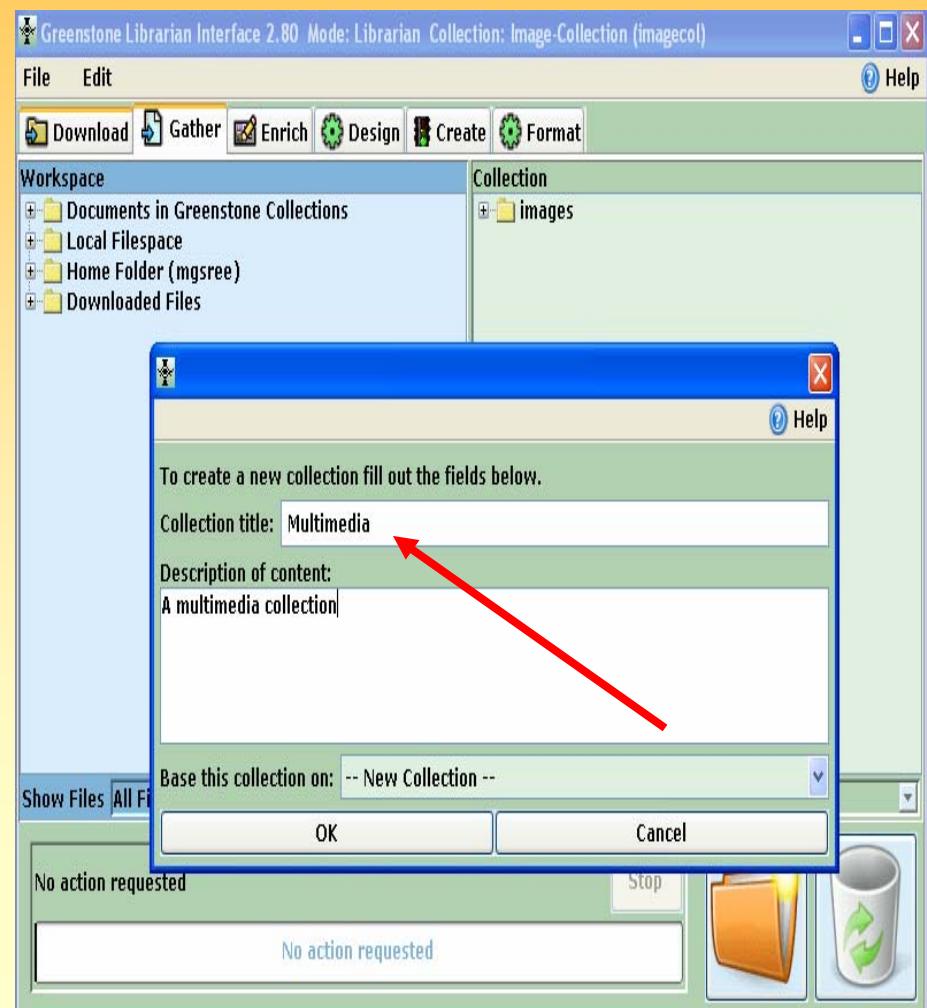
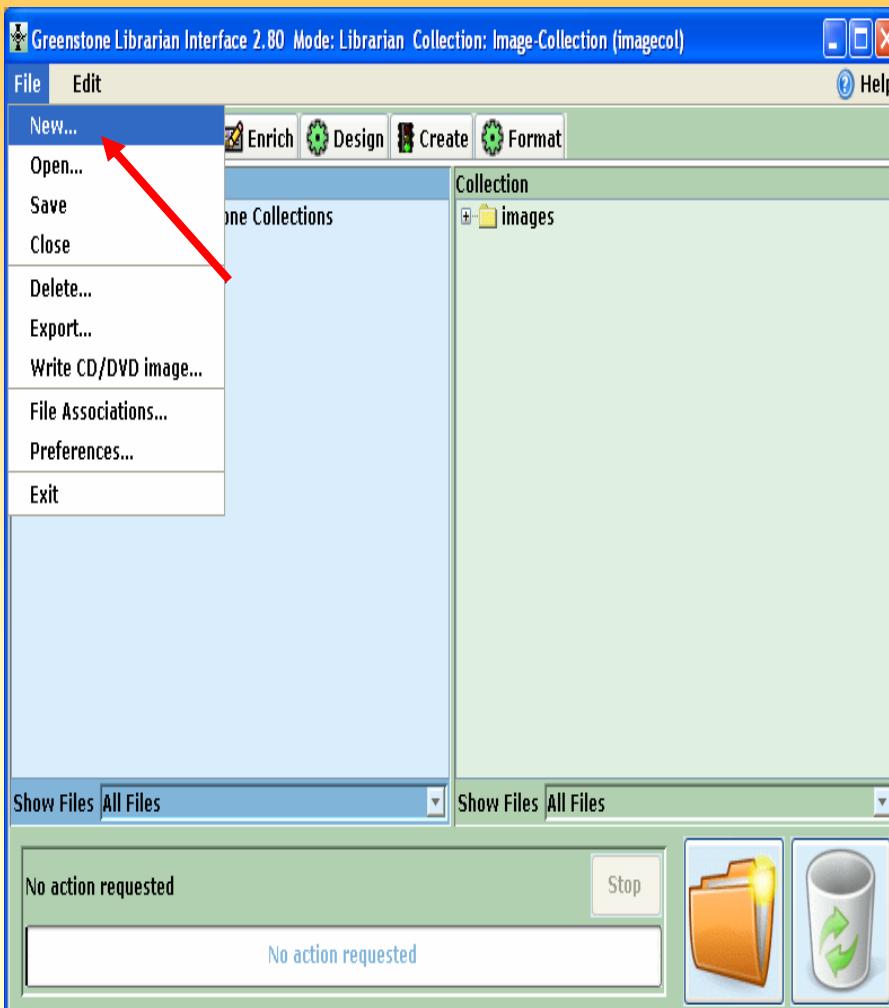
- Greenstone used to have three modes of collection building, viz., **Command Line**, **Web Interface** and **the GLI** (**Greenstone Librarian Interface**)
- Progressing with version 2.4x., the **GLI** got strengthened as well as popularized
- Web Interface mode has been withdrawn temporarily.
- The 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

# Collection Building

- Input: a set of source documents
- Possibly in many different formats
- Greenstone “imports” these documents and converts them to its own internal (GA) format
  - Extracts as much metadata as possible
- Greenstone “builds” indexes and browsing structures using the GA files
- Start with a few documents, get the design right, then add the bulk of the documents

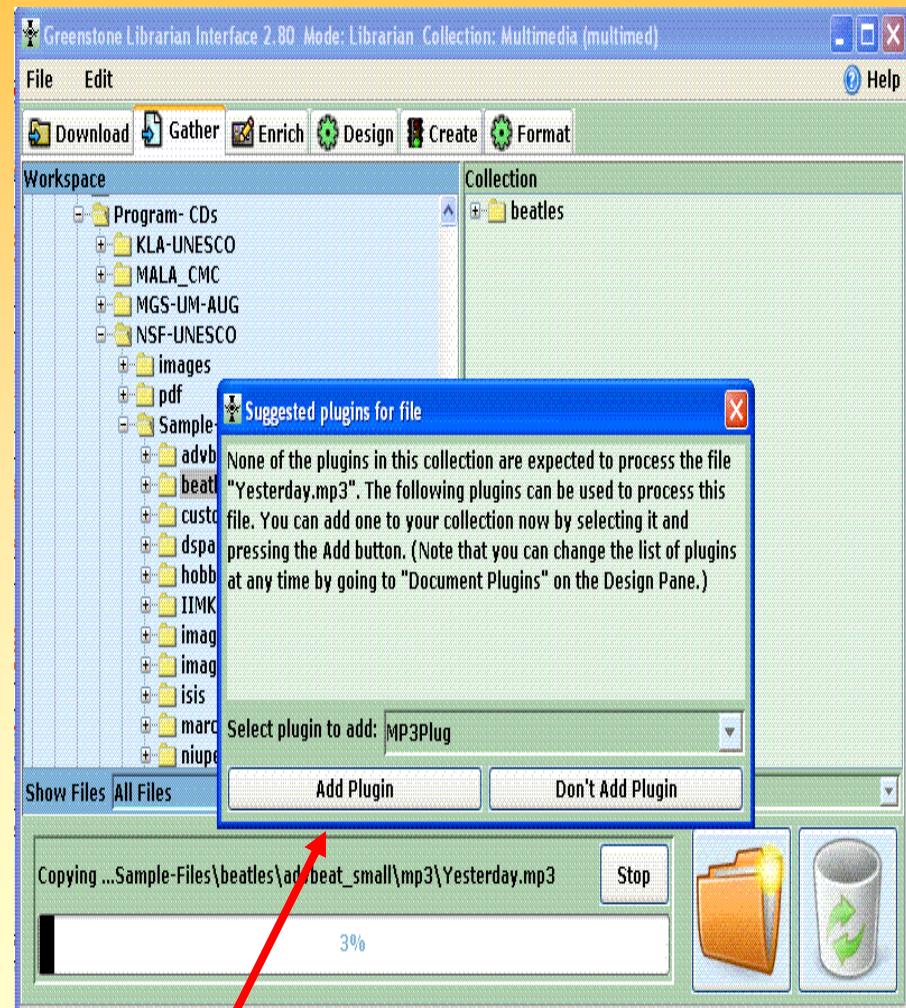
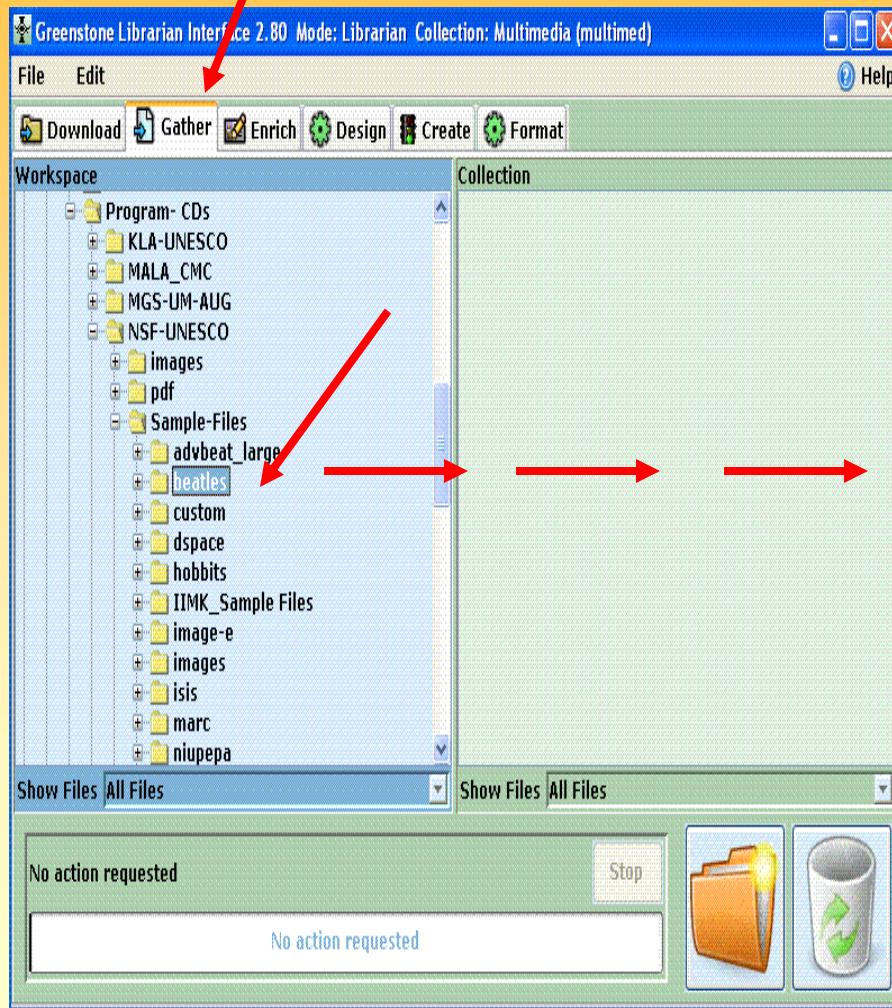
# Building a New Collection

In GLI, Go to File, Select New and Say “Multimedia” and base it to New



# Building a New Collection

In Gather, Browse Files From Workspace & Drag-Drop to Collection Area



File Edit

Download Gather Enrich Design Create Format

## Workspace

- + Documents in Greenstone Collections
- + Local Filespace
- + Home Folder (NEWUSER)
- + Downloaded Files
- sample\_files
  - beatles
    - + advbeat\_large
    - advbeat\_small
      - + discography
      - + html\_lyrics
      - + images
      - + marc
      - + mp3
      - + tablature\_txt
      - + wordpdf
      - beatles\_midi.zip
    - + format\_tweaks
  - + custom
  - + dspace
  - + hobbits
  - + images
  - + isis
  - + marc
  - + niupepa
  - + oai
  - + tudor
  - + Word\_and\_PDF

## Collection

- + discography
- + html\_lyrics
- + images
- + marc
- + mp3
- + tablature\_txt
- + wordpdf
- beatles\_midi.zip

Show Files All Files

Show Files All Files

No action requested

Stop

No action requested



File Edit

Download Gather Enrich Design Create Format

<input type="checkbox"/> maxdocs	1
<input type="checkbox"/> OIDtype	hash - Hash the contents of the file. Document identifiers will be the same every time the collection is imported.
<input type="checkbox"/> EXP	Export

 Complete Rebuild

0%

 Minimal Rebuild

Build Collection

Cancel Build

Preview Collection



File Edit

Help



Complete Rebuild

100%

Minimal Rebuild

Build Collection

Cancel Build

Preview Collection

The file C:\Program Files\Greenstone\collect\multmedi\tmp\beatles1.html is being processed by HTMLPlug.  
The file C:\Program Files  
The file beatles\format\_t  
The file beatles\format\_t  
The file beatles\format\_t  
The file beatles\format\_t  
The file beatles\format\_tweaks\show\_num\_docs.txt is being processed by TEXTPlug.  
\*\*\*\*\* Import Finished \*\*\*\*\*

790 documents were considered for processing:

709 documents were processed and included in the collection.

81 were unrecognised.

\*\*\*\*\* Build Started \*\*\*\*\*

Compressing text...

Creating an index based on text;Title;Source;...

Creating information database...

Creating auxiliary files and tidying up





File Edit View Favorites Tools Help



multimedia

search

titles

filenames

Search for  that contain  of the words

HOME

HELP

PREFERENCES

about

## About this collection

This collection contains 709 documents. It was last built 0 days ago.

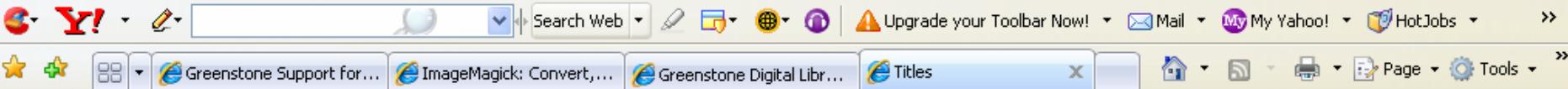
## How to find information in the Multimedia collection

There are 3 ways to find information in this collection:

- search for particular words that appear in the text by clicking the Search button
- browse documents by Title by clicking the Titles button
- browse documents by Filename by clicking the Filenames button



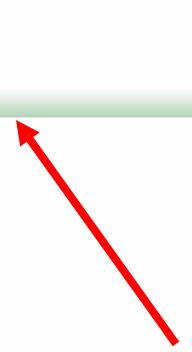
File Edit View Favorites Tools Help



## multimedia

[HOME](#) [HELP](#) [PREFERENCES](#)**titles**[search](#)[titles](#)[filenames](#)[A B C D E F G H I J L M N O P R S T U W Y 0-9](#)

- ABBEY ROAD  
([abbeyroad.htm](#))
- Across The Universe  
([across.htm](#))
- Act Naturally  
([act.htm](#))
- Ain't She Sweet  
([aint\\_she\\_sweet.htm](#))
- All I've Got To Do  
([all\\_ive\\_got.htm](#))
- ALL MY LOVING  
([allmy.txt](#))
- ALL MY LOVING  
([allmy.txt](#))
- All My Loving  
([all\\_my\\_loving.htm](#))
- All My Loving  
([all\\_my\\_loving.htm](#))
- All Together Now  
([all\\_together.htm](#))
- All You Need Is Love



# greenstone digital library software

[HELP](#) [PREFERENCES](#)**select a collection**[Audios](#)[Collection1](#)**Greenstone demo**[Image-Collection](#)[isis-to-greenstone](#)[multi-format collection](#)[Multimedia](#)[my-references](#)[The Librarian Interface](#)

Helps you create new collections, modify or add to existing ones, or delete collections

[Administration Page](#)

Allows you to add new users, summarizes the collections in the system, gives technical information on the Greenstone installation

[About Greenstone](#)

Tells you about the Greenstone software and the New Zealand Digital Library Project where it originated

[Greenstone Documentation](#)

Greenstone manuals

Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. 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**. It is open-source software, available from <http://greenstone.org> under the terms of the GNU General Public License.

The aim of the software is to empower users, particularly in universities, libraries, and other public service institutions, to build their own digital libraries. Digital libraries are radically reforming how information is disseminated and acquired in UNESCO's partner communities and institutions in the fields of education, science and culture around the world, and particularly in developing countries. We hope that this software will encourage the effective development of digital libraries to share information and place it in the public domain.

File Edit

Help

Download Gather Enrich Design Create Format

## Collection

- + discography
- + html\_lyrics
- + images
- + marc
- + mp3
- + tablature\_txt
- + wordpdf
- beatles\_midi.zip



Element	Value
dc.Title	
dc.Creator	
dc.Subject and Keywords	
dc.Description	
dc.Publisher	
dc.Contributor	
dc.Date	
dc.Resource Type	
dc.Format	Discography
dc.Resource Identifier	
dc.Source	
dc.Language	
dc.Relation	
dc.Coverage	

No Metadata Element Selected

Show Files All Files

Manage Metadata Sets...



&gt;&gt;



5:04 PM

File Edit

Help

Download Gather Enrich Design Create Format

- Document Plugins
- Search Indexes
- Partition Indexes
- Browsing Classifiers

## Document Plugins

Help for this screen

### Assigned Plugins

ZIPPlug  
GAPPlug  
TEXTPlug  
HTMLPlug  
EMAILPlug  
PDFPlug  
RTFPlug  
WordPlug  
PSPlug  
ImagePlug  
ISISPlug  
NULPlug  
MetadataXMLPlug  
MP3Plug  
MARCPlug  
UnknownPlug -file\_format MIDI -mime\_type audio/midi -process\_extension mid

Move Up

Move Down

Select plugin to add: BibTexPlug

Add Plugin...

Configure Plugin...

Remove Plugin

start

&gt;&gt;

IIMK...

MAL...

Gree...

Gree...

Gree...

Gree...

Gree...

Gree...

Gree...

5:05 PM

File Edit

Help

Download

Gather

Enrich

Design

Create

Format

- Document Plugins
- Search Indexes
- Partition Indexes
- Browsing Classifiers

## Search Indexes

Help for this screen

Indexer in use: MGPP

[Change...](#)

### Assigned Indexes

text  
dls.Title,ex.Title  
dls.Subject And Keywords  
dls.Organization  
dls.Keyword

Move Up

### Select the Indexer

 MGPP MG Lucene

This new version of MG (MG plus plus) was developed by the New Zealand Digital Library Project. It does word level indexing, which allows fielded, phrase and proximity searching to be handled by the indexer. Boolean searches can be ranked. Only a single index file is created for a Greenstone collection: document/section levels and text/metadata fields are all handled by one index file. For collections with many indexes, this results in a smaller collection size than using MG. For large collections, searching may be a bit slower due to the index being word level rather than section level.

[OK](#)[Cancel](#)

File Edit

Help

Download

Gather

Enrich

Design

Create

Format

- Document Plugins
- Search Indexes
- Partition Indexes
- Browsing Classifiers

## Search Indexes

Help for this screen

Indexer in use: MGPP

Change...

### Assigned Indexes

text  
dls.Title,ex.Title  
dls.Subject And Keywords  
dls.Organization  
dls.Keyword

Move Up

### Select the Indexer

 MGPP MG Lucene

This is the original indexer used by Greenstone, developed mainly by Alistair Moffat and described in the classic book *Managing Gigabytes*. It does section level indexing, and searches can be boolean or ranked (not both at once). For each index specified in the collection, a separate index file is created. For phrase searching, Greenstone does an "AND" search on all the terms, then scans the resulting hits to see if the phrase is present. It has been extensively tested on very large collections (many GB of text).



OK

Cancel

Download

Gather

Enrich

Design

Create

Format

- Document Plugins
- Search Indexes
- Partition Indexes
- Browsing Classifiers

## Search Indexes

Help for this screen

Indexer in use: MGPP

Change...

### Assigned Indexes

text  
dls.Title,ex.Title  
dls.Subject And Keywords  
dls.Organization  
dls.Keyword

Move Up

### Select the Indexer

 MGPP MG Lucene

Lucene was developed by the Apache Software Foundation. It handles field and proximity searching, but only at a single level (e.g. complete documents or individual sections, but not both). Therefore document and section indexes for a collection require two separate index files. It provides a similar range of search functionality to MGPP with the addition of single-character wildcards, range searching and sorting of search results by metadata fields. It was added to Greenstone to facilitate incremental collection building, which MG and MGPP can't provide.

OK

Cancel

Download

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Design

Create

Format

- General
- Search
- Format Features
- Translate Text
- Cross-Collection Search
- Collection Specific Macros
- Depositor Metadata

## General

Help for this screen

Creator's email

Maintainer's email

Collection title:

Collection folder:

URL to 'about page' image:

URL to 'home page' image:

  This collection should be publicly accessible

Collection description:

Preview Collection

File Edit

Help

Download

Gather

Enrich

Design

Create

Format

- General
- Search
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- Translate Text
- Cross-Collection Search
- Collection Specific Macros
- Depositor Metadata

## Format Features

Help for this screen

```
VList "<td valign="top">[link][icon][/link]</td><td valign="top">[ex.srclink]{Or}{  
HList "[link][highlight][ex.Title][/highlight][/link]"  
DocumentHeading "{Or}{{parent(Top):Title}, [Title], untitled}<br>"  
DocumentText "[Text]"  
DocumentButtons "Detach|Highlight"  
SearchTypes "plain,form"
```

 Choose Feature *All Features*Affected Component *VList*

## HTML Format String

```
<td valign="top">[link][icon][/link]</td>  
<td valign="top">[ex.srclink]{Or}{[ex.thumbicon],[ex.srcicon]}[ex./srclink]</td>  
<td valign="top">[highlight]  
{Or}{[dc.Title],[exp.Title],[ex.Title],Untitled}  
[/highlight]{If}{[ex.Source],<br><i>([ex.Source])</i>}</td>
```

Insert Variable...

Undo

Redo

Preview Collection

Add Format

Remove Format

Reset to Default

# A (slightly) enhanced collection - Multimedia

## dbbeat\_large - Microsoft Internet Explorer

File Edit View Favorites Tools Help



search

Search for te

### Add plugin

- UnknownPlug, set to accept MIDI files

### Add metadata

- for "browse" button (8 items)
- for image titles (14 titles)
- to correct misspelling (*mystery*) (1 item)

### Add/modify classifiers

- modify to display dc.title or ex.title
- add one for "browse" button
- remove the one for filename
- add one for phrase index
- add regular expressions to clean up titles

### Modify format statements

- show title only for cover images
- suppress text document icon for MP3/MIDI items
- make bookshelves show how many documents they contain

### General

- assign collection icons
- assign icons for non-standard media types: *lyrics*, *discography*, etc

## About this collection

Demonstration collection illustrating the use of heterogeneous documents. Source documents are about The Beatles pop group in the following formats: HTML, TXT, JPEG, Word, PDF, MIDI, MP3, and MARC file formats.

## How to find information in the dbbeat\_large collection

There are 4 ways to find information in this 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

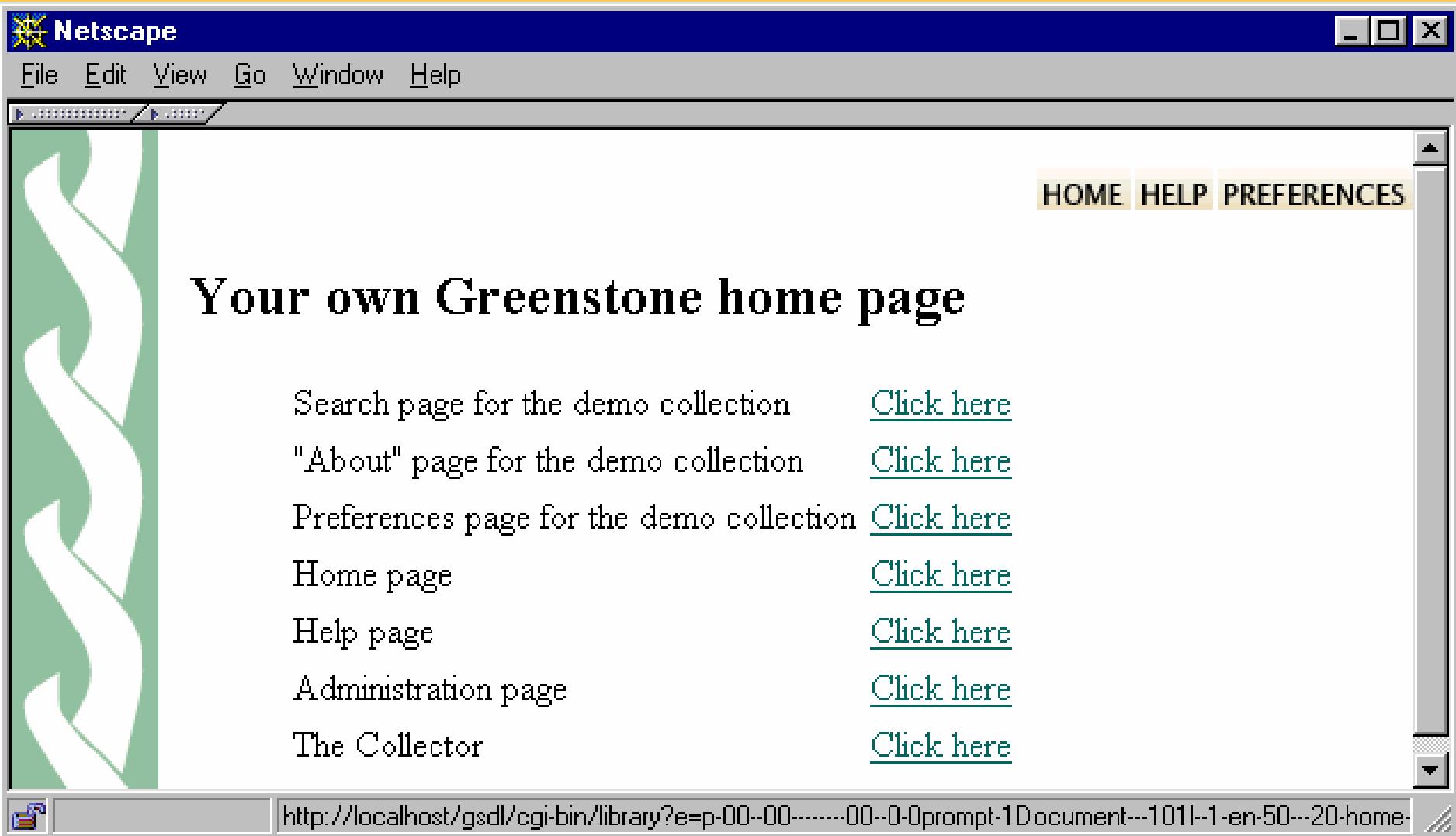
# Customizing with macros

- 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 etc/main.cfg
- Collection-specific macros
  - Stored in greenstone2/collect/mycol/macros/extra.dm
  - Or include argument [c=collectionname] for each macro

# Personalizing your home page

C:\Program Files\gs2\etc\main.cfg

change *home.dm* to *yourhome.dm*



The image shows a screenshot of a Netscape browser window. The title bar reads "Netscape". The menu bar includes "File", "Edit", "View", "Go", "Window", and "Help". The toolbar below the menu bar has icons for Back, Forward, Stop, and Home. The main content area features a decorative background on the left side with green and white diagonal stripes. At the top right, there are links for "HOME", "HELP", and "PREFERENCES". The main heading in the center says "Your own Greenstone home page". Below it, there is a list of links with "Click here" underlines:

Search page for the demo collection	<a href="#">Click here</a>
"About" page for the demo collection	<a href="#">Click here</a>
Preferences page for the demo collection	<a href="#">Click here</a>
Home page	<a href="#">Click here</a>
Help page	<a href="#">Click here</a>
Administration page	<a href="#">Click here</a>
The Collector	<a href="#">Click here</a>

At the bottom, the address bar shows the URL: "http://localhost/gsdl/cgi-bin/library?e=p-00--00-----00--0-0prompt-1Document---1011-1-en-50---20-home-".



File Edit View Favorites Tools Help

Back Forward Home Search Favorites Media Stop Refresh

Address http://imkdl:1025/gsd1?e=d-0-0-econom--00-0-0-prompt-14-Document---0-11-1-en-50---20-about---001-001-1-0isoZz-8859Zz-1-08cl=CL1&amp;d=HASH01cd404093e5e58a37e Go Links



Search Web

Pop-Up Blocker

Sign In

Mail

Games

Yahoo!

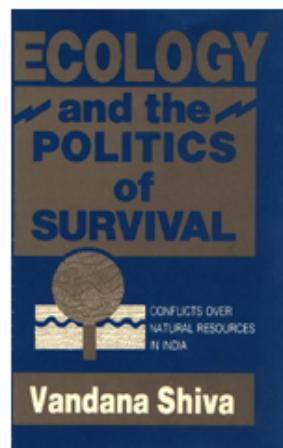
Personals

My Yahoo!

LAUNCH

search

titles a-z

HOME HELP PREFERENCES  
filenames

EXPAND TEXT

CONTRACT CONTENTS

DETACH

NO HIGH-LIGHTING

## Ecology and The Politics of Survival: Conflicts Over Natural Resources in India

source ref: ebookecopd.html

Metadata

Preface

Introduction

### Part One: Forest Conflicts

Chapter 1: Forest ecology and forest conflicts

Chapter 2: The survival economy and forest conflicts

Chapter 3: The chipko movement

Chapter 4: Afforestation programmes and land use conflicts

Chapter 5: Wasteland development and conflict over commons

### Part Two: Water Conflicts

Chapter 6: Conflicts over river waters

Chapter 7: Large dams and conflicts in the Krishna Basin

Chapter 8: Water scarcity and people's alternatives

## Hierarchy Structure

Done

Local intranet

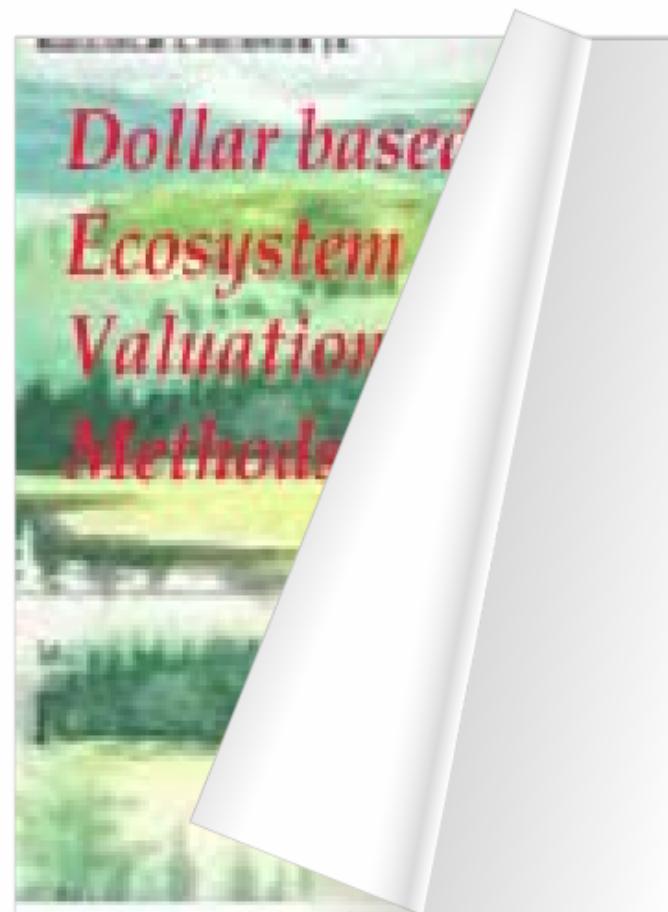


5:44 PM

<http://localhost:1025/gSDL?e=d-010-00-on-realisti--0-1---0--0direct-10---4-----0-1--11-en-50---20-preferences---00-3-1-> Google

File Edit View Favorites Tools Help

Greensto... Greensto... Tobacco ... Tobacco ... biblio\_for... Internet ... biblio\_... Page Tools



Page

front cover

of

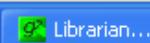
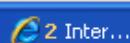
12



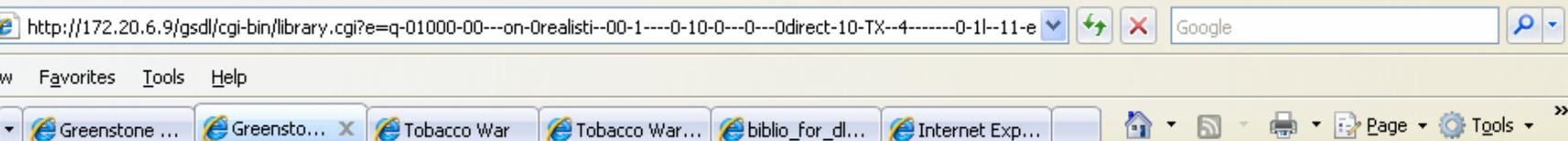
Done

Internet

100%



7:06 PM

[HOME](#) [HELP](#) [PREFERENCES](#)

## Realistic Book Collection

[search](#)[titles](#)[filenames](#)

powerful searching capabilities, and offer rich and natural indexes, while browsing is based on various metadata; browsing facilities. Above all it must be easy to maintain support structures for both are created during the building and augment, which presents a significant challenge if any operation. When new material appears it can be fully manual organization is involved.

incorporated into the collection by rebuilding.

The alternative is to automate these activities through To address the exceptionally broad demands of digital software tools. But the broad scope of digital library libraries, the system is public and extensible. It is issued requirements makes this a daunting prospect. Ideally the

captured in the folder constructed table of contents. A collection of digital objects, is shown in bold in the table of contents. Video, and audio, along with media sign: one starting further down the page, and retrieval, and for selection, organic collection. In accordance with Lesk's advice, a statement and maintenance of the collection and coverage accompanies each collection, along with a explanation of how it is organized (Figure 1 shows the (Akscyn and Witten, 1998). Lesk (1998) views digital libraries as "organized collections of digital information," he necessary plugins. In order to access from metadata, an analogous classifiers" is used: classifiers create indexes and based on metadata. Source documents are

# 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”

# Documentation and help

- Available at: [www.greenstone.org](http://www.greenstone.org)
  - Software
  - Demo collections
  - FAQ
  - Tutorial materials
- Documentation:
  - Installer's Guide, User's Guide, Developer's Guide, From Paper to Collection
- Mailing lists:
  - Greenstone Users List
  - Greenstone Developers List

# Documentation and help

## Manuals on the CD-ROM (docs)

- *Installer's Guide* (install.pdf, 36pp)  
Versions of Greenstone, installation procedure,  
Greenstone collections, setting up the web server,  
configuring your site, personalizing your installation
- *User's Guide* (user.pdf, 90pp)  
Overview of Greenstone, using Greenstone collections,  
the collector, administration, software features, glossary  
of terms
- *Developer's Guide* (develop.pdf, 113pp)  
Understanding the collection building process, getting  
the most out of your collections, the Greenstone  
runtime systems, configuring your Greenstone site
- *From Paper To Collection* (paper.pdf, 30pp)  
Scanners and scanning, OCR, 3 examples – from 1,000  
to 100,000 pages, Creating an electronic collection

# Documentation and help

- [greenstone.org](http://greenstone.org)

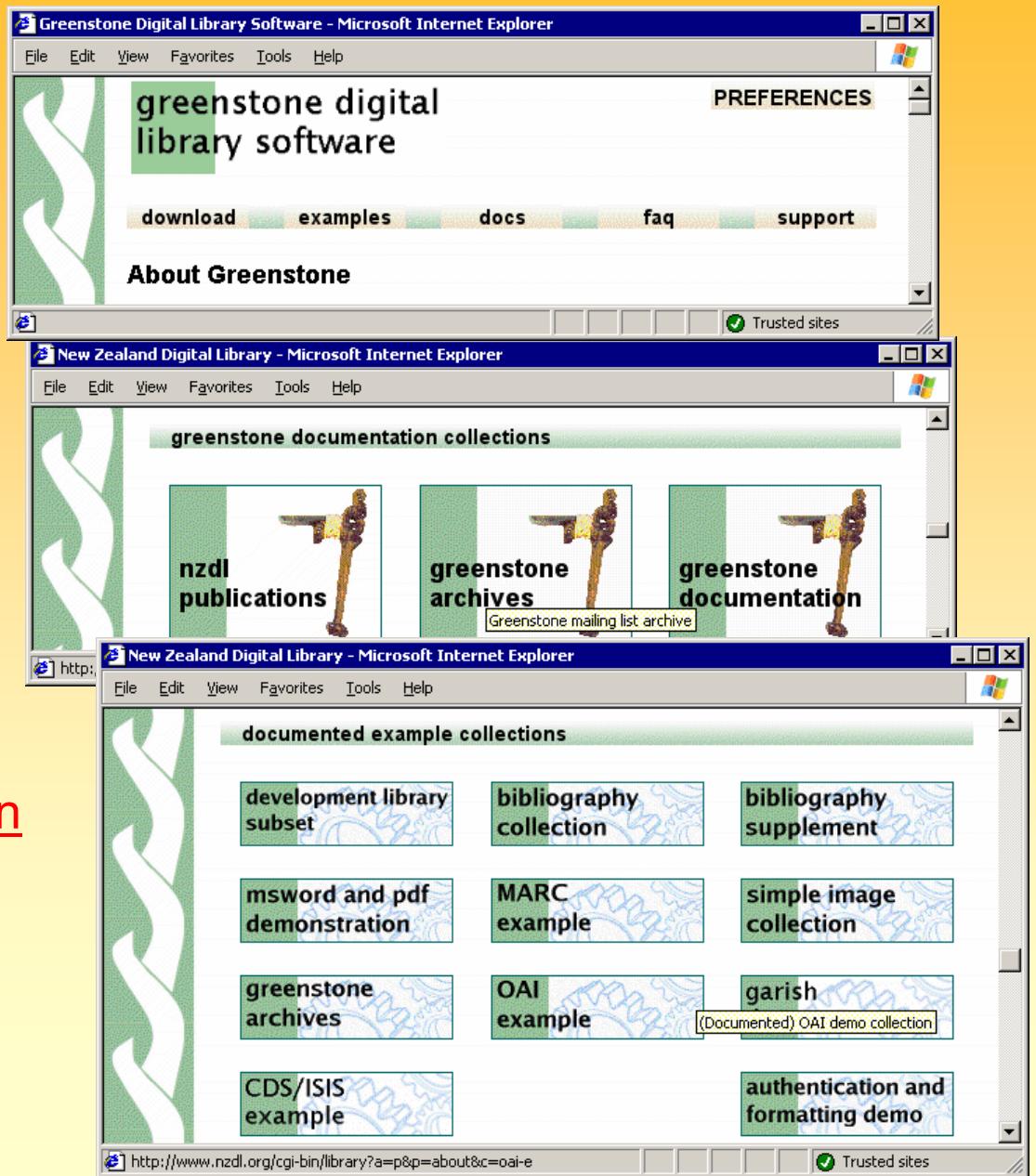
- Download: software and tutorials
- Example collections
- Documentation
- FAQ: general info section
- support  
(+ join mailing list)
- Configuration files for nzdl.org collections

- [nzdl.org](http://nzdl.org)

- Documentation collections
- Documented
- example collections

- [greenstonesupport.iimk.ac.in](http://greenstonesupport.iimk.ac.in)

- Download: software and tutorials
- Example collections
- Documentation
- support  
(+ join mailing list)



# Documentation and help

## Mailing Lists

- *Greenstone Users List*  
For people installing and using standard Greenstone  
Join at: <https://list.scms.waikato.ac.nz/mailman/listinfo/greenstone-users>  
Mail to: [greenstone-users@list.scms.waikato.ac.nz](mailto:greenstone-users@list.scms.waikato.ac.nz)
- *Greenstone Developers List*  
For people customizing their version of Greenstone  
Join at: <https://list.scms.waikato.ac.nz/mailman/listinfo/greenstone-devel>  
Mail to: [greenstone-devel@list.scms.waikato.ac.nz](mailto:greenstone-devel@list.scms.waikato.ac.nz)
- *Greenstone Support for South Asia* [<http://greenstonesupport.iimk.ac.in>]  
Mail to: [greenstonesupport@iimk.ac.in](mailto:greenstonesupport@iimk.ac.in)

## Mailing List Archives

A Greenstone collection of mail from both mailing lists  
<http://www.nzdl.org/gsarchives>



DIGITAL LIBRARY



## Indian Institute of Management Kozhikode

### DIGITAL LIBRARY



**E Journals**  
**Information Technology**  
**Business**  
**Economics**  
**Generalia**  
**Management**  
**Psychology**  
**Statistics**  
**Journal alert**

[About DL](#)

**Videos**  
**Environmental Science**  
**Classics**  
**Finance**  
**E Commerce**  
**Marketing**  
**Sociology**  
**IIMK Publications**  
**News Archive**

[Library Home](#)



Powered by Greenstone

# Journal Content Page Service

» Library and Information Centre



HOME PAGE

LIBRARY

ABOUT

CONTACT

Search Content Pages

Begin Search

## Browse the Content Pages of Journals

- [Accounting World](#)
- [American Behavioral Scientist](#)
- [American Economic Journal Applied Economics](#)
- [American Economic Journal Economic Policy](#)
- [American Economic Journal Micro Economics](#)
- [Analyst](#)
- [Bulletin for International Taxation](#)
- [Business Barons](#)
- [Canadian Journal of Economics](#)
- [Case Folio](#)
- [Chartered Accountant](#)
- [Chartered Secretary](#)
- [Chartered Secretary India](#)
- [Communications Today](#)
- [Crisil Rating Scan](#)
- [CTJ](#)

## Other Services

[Databases](#)

[E-Journals](#)

[Online Services](#)

[Digital Library](#)

[Ask a Librarian](#)

[Leadership Compass](#)

[IIMK Institutional Repository](#)

[News Paper Clippings](#)

## Online Catalogues

[Books](#)

[Journals](#)

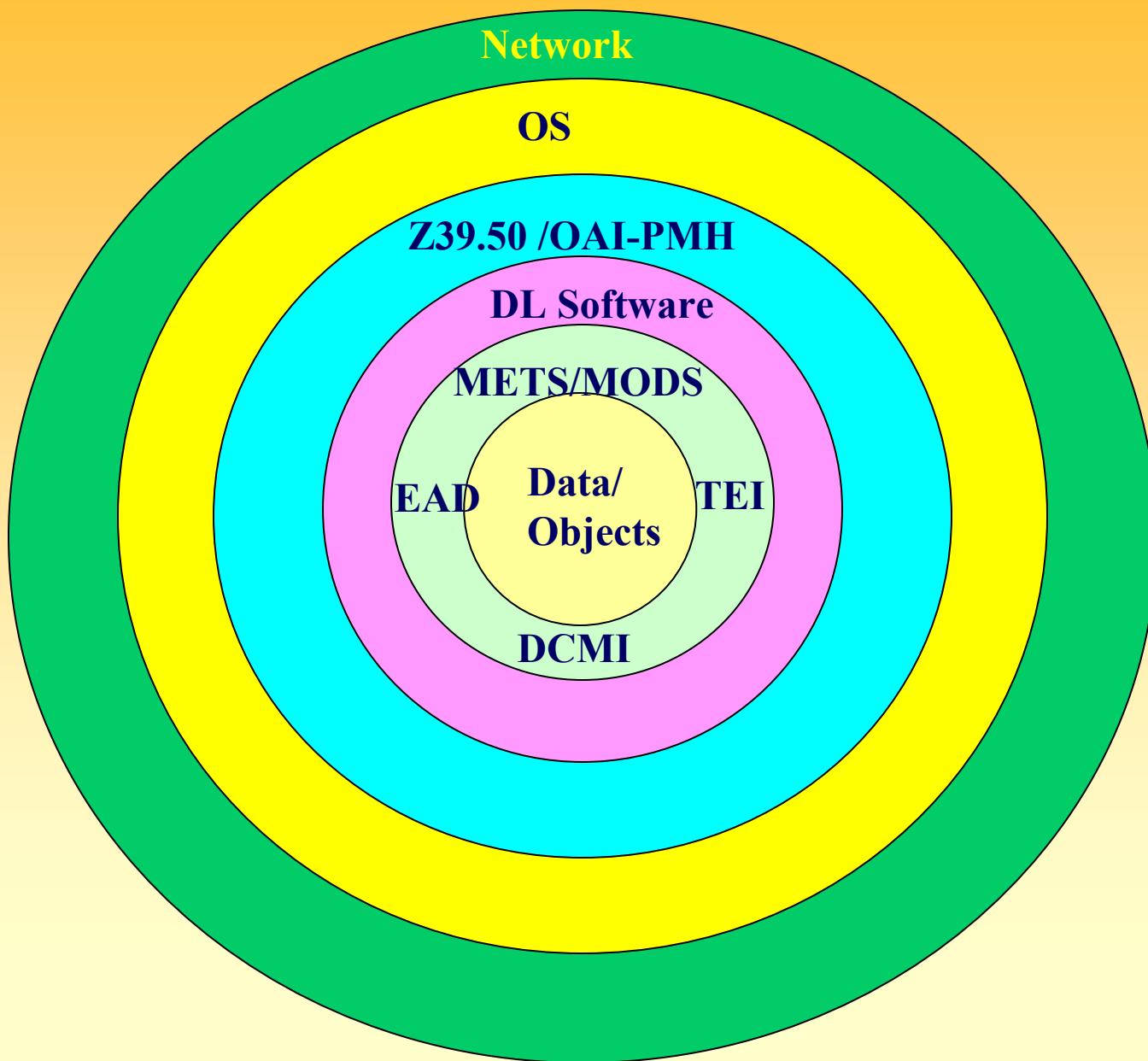
# **DL - Hardships**

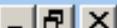
- Copyright Issues
- Technology Complexities
- Infrastructure Issues
- Publications/Formats – Diverse Datastreams
- Digital Objects/Formats - Multiple
- Publishers' Policies – Stringent, Inconsistent

# **Major Tasks**

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

# DIGITAL LIBRARY ARCHITECTURE





# http://greenstonesupport.iimk.ac.in

Address  Go Links >

## Greenstone Support for South Asia



Home      Our Mission      Resources ▾      Training ▾      Advisors      Support Team      Greenstone

### ≡ Greenstone Support for South Asia has been launched

The Greenstone Digital Library Software (<http://www.greenstone.org>) is an Open Source package for building and distributing Digital Libraries which has been developed by the University of Waikato, New Zealand. Greenstone is supported by the UNESCO and the Human Info NGO Belgium for spreading the benefits of this software to developing countries. Greenstone is a powerful and flexible software which is of great potential interest to libraries and information centers and other public and private institutions in South Asia.

This support effort is coordinated by the CDDL at IIM Kozhikode in collaboration with the [Greenstone development team](#) in order to ensure effective promotion and support for Greenstone in South Asia.

Site Search

 Go

26/11

### Events

[Advisory Sub Committee Meeting on April 16, 2007](#)

### ≡ Workshops Coordinated by Greenstonesupport ITMK



Done

Start



2 Firefox

4 Windows E...

6 Internet E...

Microsoft Powe...



7:23 PM

# Acknowledgement

- Prof. Ian Witten, Director, Greenstone Digital Library Project, University of Waikato, New Zealand
- Team Greenstone, New Zealand
- Greenstone Support South Asia
- IIM Kozhikode, India
- UNESCO



Thank you

Questions?