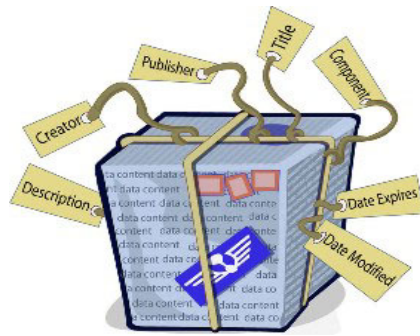


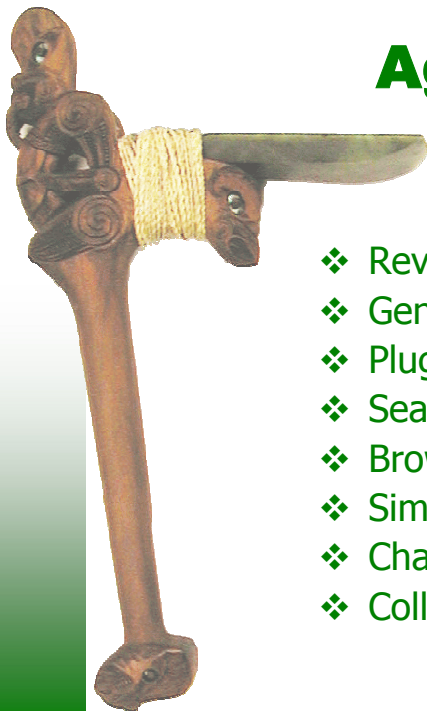
## Librarian Interface: using metadata, simple collection configuration



Course material prepared by

**Greenstone Digital Library Project**  
**University of Waikato, New Zealand**  
and **National Centre for Science Information,**  
**Indian Institute of Science, Bangalore**

## Agenda



- ❖ Review: Searching and browsing
- ❖ General Options
- ❖ Plugins
- ❖ Searching – indexes
- ❖ Browsing – classifiers
- ❖ Simple formatting
- ❖ Changing metadata sets
- ❖ Collection configuration file

# Searching and browsing

❖Searching

❖Metadata-based browsing

search subjects titles a-z organization how to

34

farming snails 2

Farming snails 2: Choosing snails; Care and harvesting; Further improvement

Preface

Subject Title Publisher "HowTo"

Dublin Core ad hoc

## Multiple search indexes

text

metadata

http://127.0.0.1 - Greenstone demo - Microsoft Internet Explorer

File Edit View Favorites Tools Help Links

HOME HELP PREFERENCES about

search subjects titles a-z organisations how to

Search for chapters that contain some of the words

chapters

section titles

entire documents

Begin Search

About this collection

This is a demonstration collection for the Greenstone digital library software. It contains a small subset (11 documents) of the Humanitarian and Development Libraries.

How to find information in the Greenstone demo collection

There are 5 ways to find information in this collection:

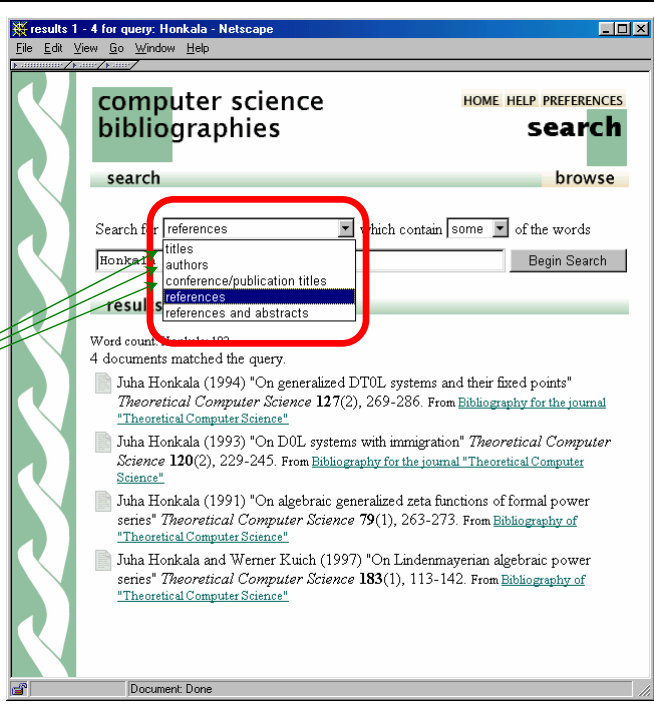
- search for particular words
- access publications by subject
- access publications by title
- access publications by organization
- access publications by "how to" listing

You can search for particular words that appear in the text from the "search" page. This is the first page that comes up when you begin, and can be

Done Internet

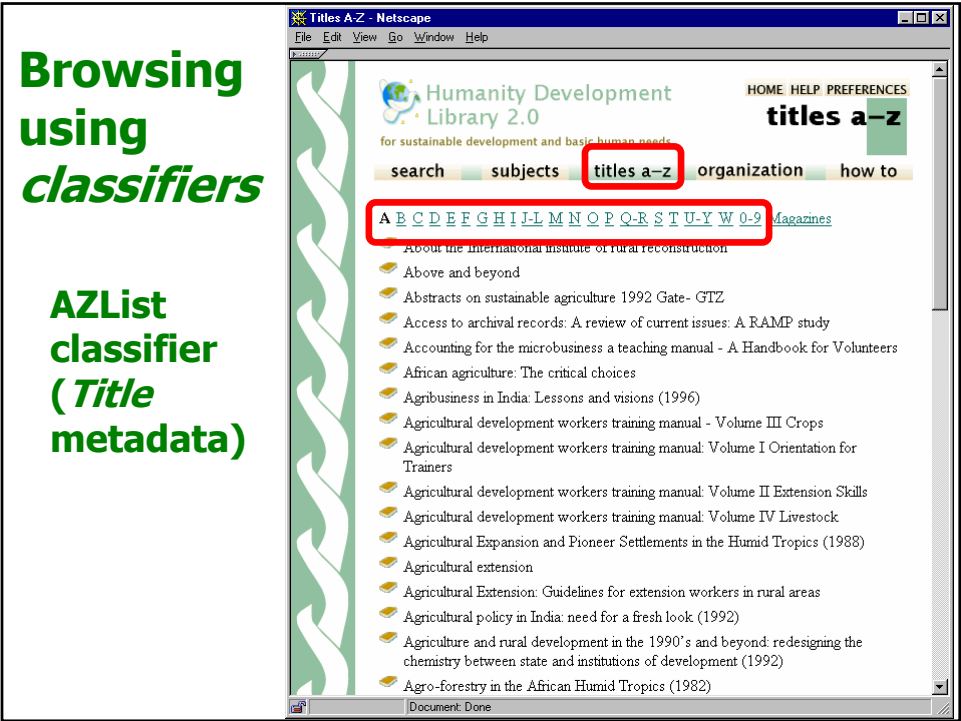
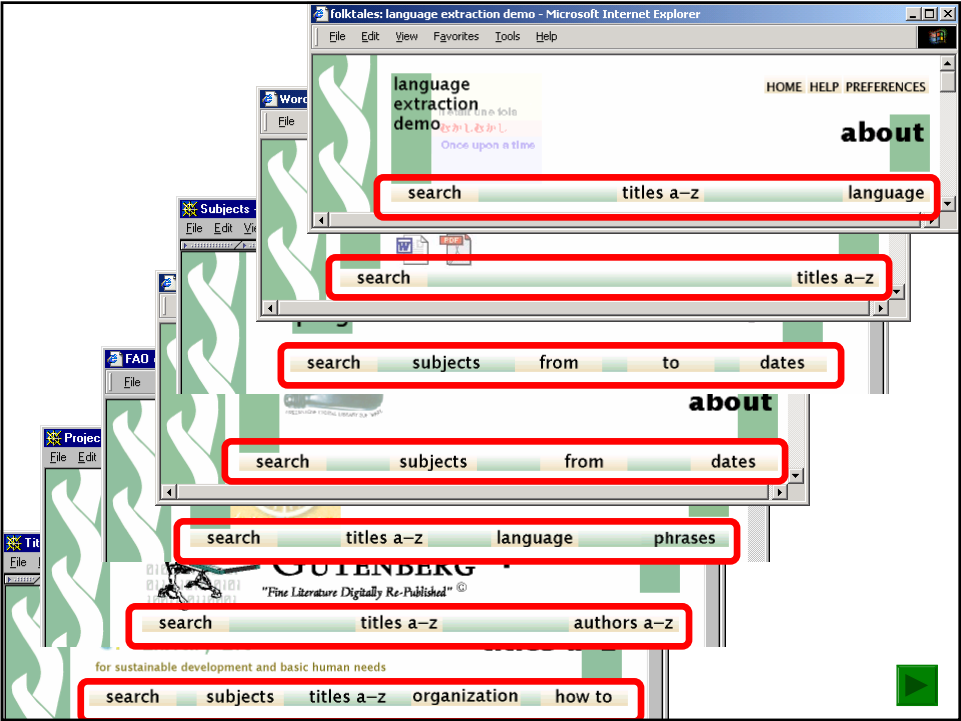
## Collection-dependent

metadata



## Multilingual searching





**Browsing  
using  
classifiers**

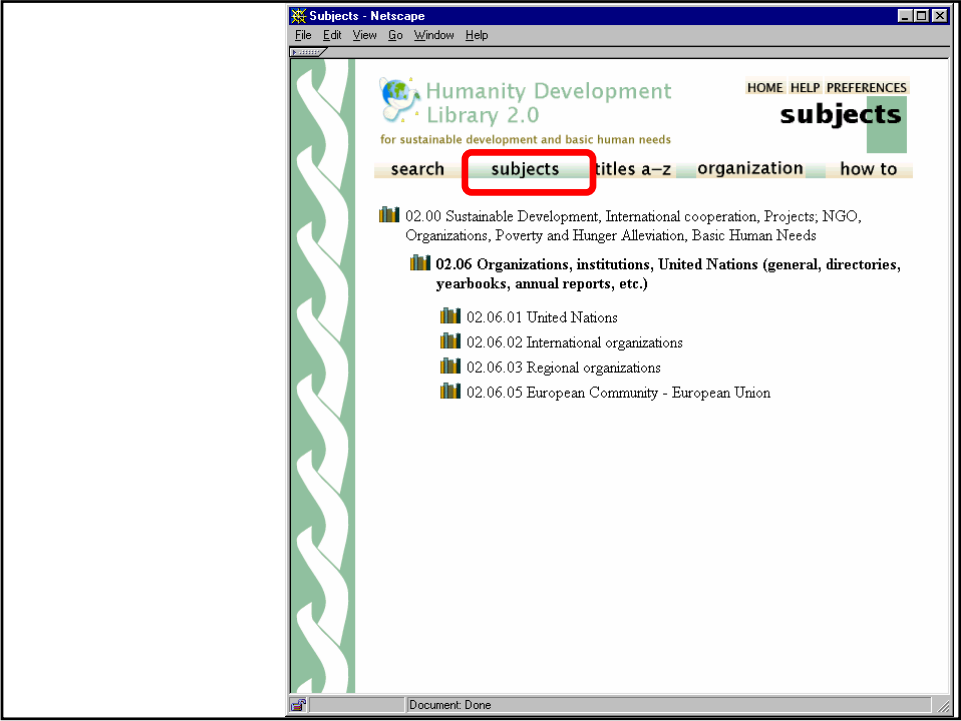
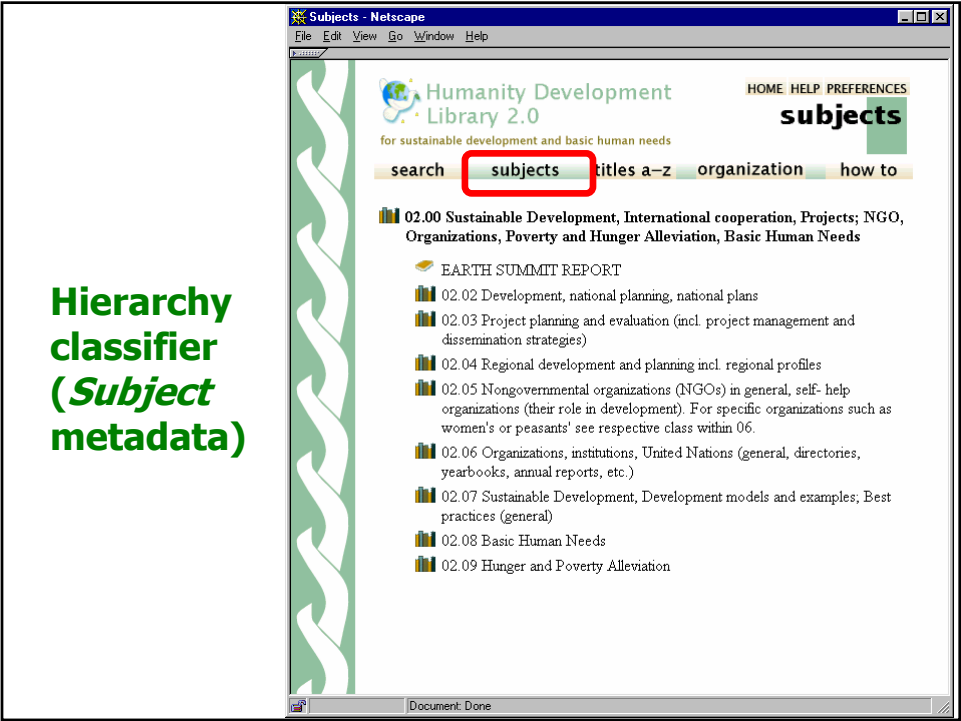
**AZList  
classifier  
(Title  
metadata)**

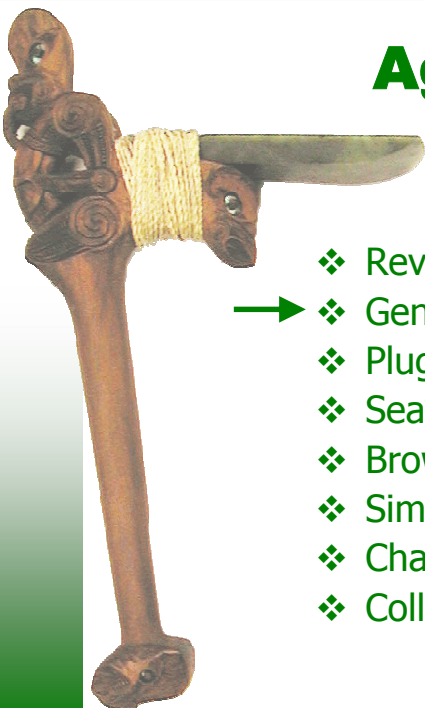
**AZCompactList classifier**  
*(Creator metadata)*

**AZCompactList classifier**  
*(Creator metadata)*

GenericList classifier  
(Title metadata)

DateList classifier  
(Date metadata)

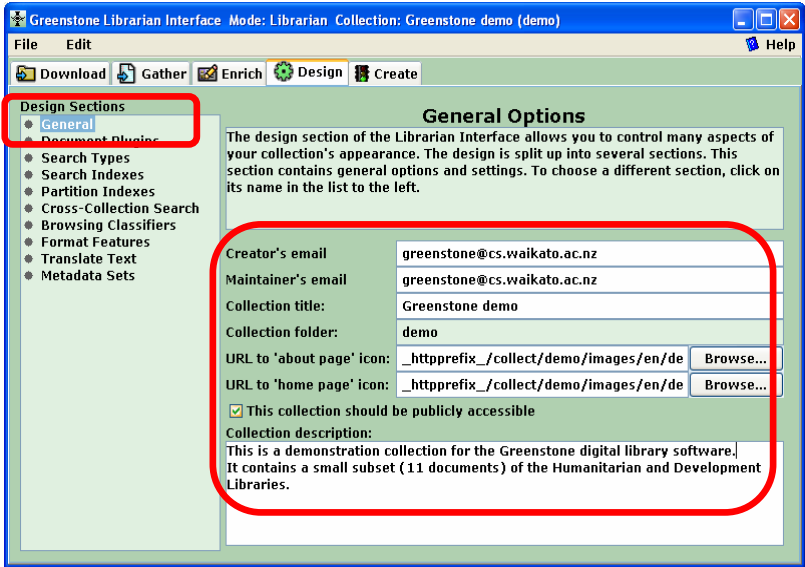




# Agenda

- ❖ Review: Searching and browsing
- ➔ ❖ General Options
- ❖ Plugins
- ❖ Searching – indexes
- ❖ Browsing – classifiers
- ❖ Simple formatting
- ❖ Changing metadata sets
- ❖ Collection configuration file

## General Options



**General Options**

The design section of the Librarian Interface allows you to control many aspects of your collection's appearance. The design is split up into several sections. This section contains general options and settings. To choose a different section, click on its name in the list to the left.

Creator's email: greenstone@cs.waikato.ac.nz

Maintainer's email: greenstone@cs.waikato.ac.nz

Collection title: Greenstone demo

Collection folder: demo

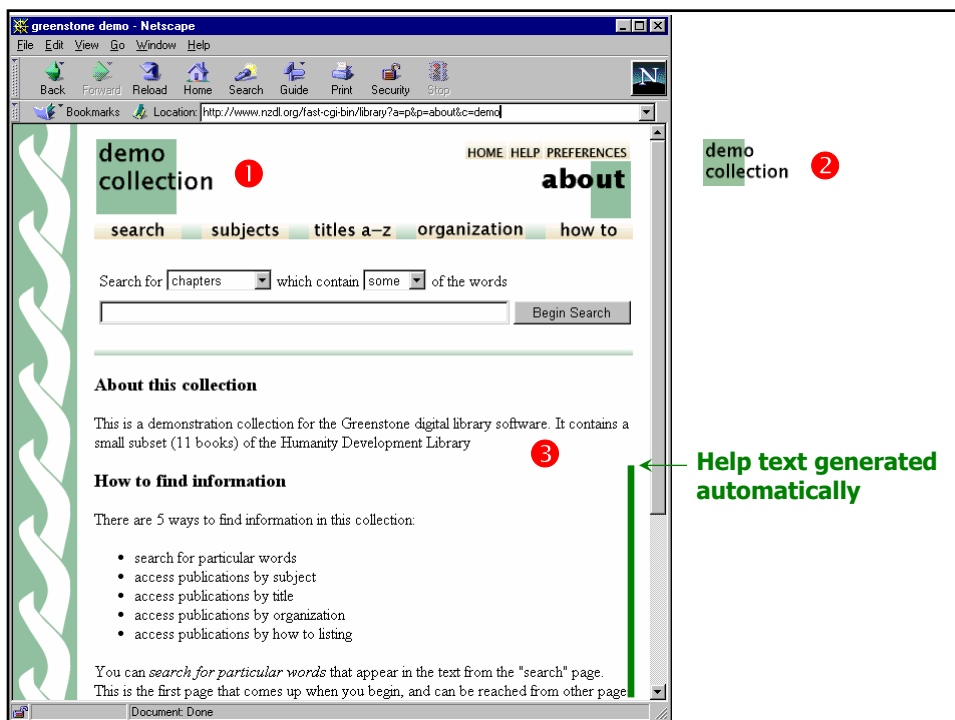
URL to 'about page' icon: \_httpprefix\_/collect/demo/images/en/de Browse...

URL to 'home page' icon: \_httpprefix\_/collect/demo/images/en/de Browse...

☒ This collection should be publicly accessible

Collection description:  
This is a demonstration collection for the Greenstone digital library software. It contains a small subset (11 documents) of the Humanitarian and Development Libraries.





greenstone demo - Netscape

File Edit View Go Window Help

Back Forward Reload Home Search Guide Print Security Stop

Bookmarks Location: <http://www.nzdl.org/last-cgi-bin/library?a=plp=about&c=demo>

demo collection **1**

HOME HELP PREFERENCES **about**

search subjects titles a-z organization how to

Search for  which contain  of the words

**About this collection**

This is a demonstration collection for the Greenstone digital library software. It contains a small subset (11 books) of the Humanity Development Library **3**


**How to find information**

There are 5 ways to find information in this collection:

- search for particular words
- access publications by subject
- access publications by title
- access publications by organization
- access publications by how to listing

You can search for particular words that appear in the text from the "search" page. This is the first page that comes up when you begin, and can be reached from other pages.

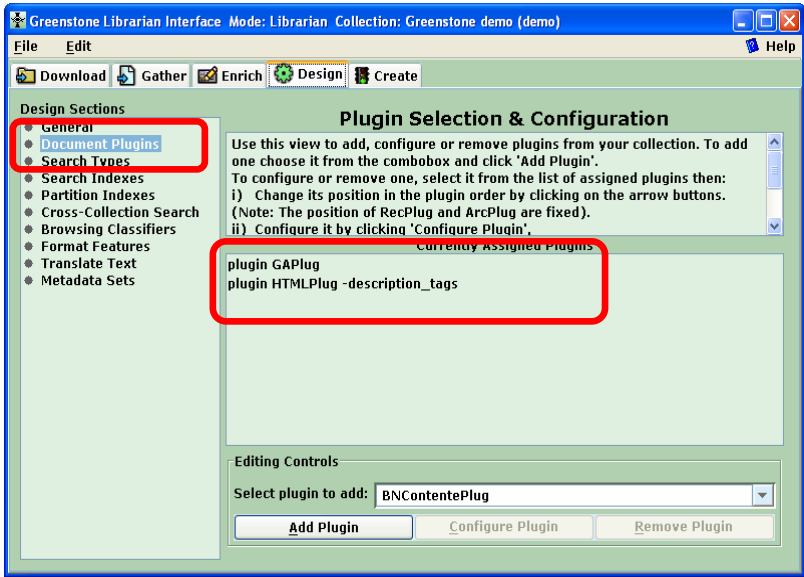
Help text generated automatically **2**



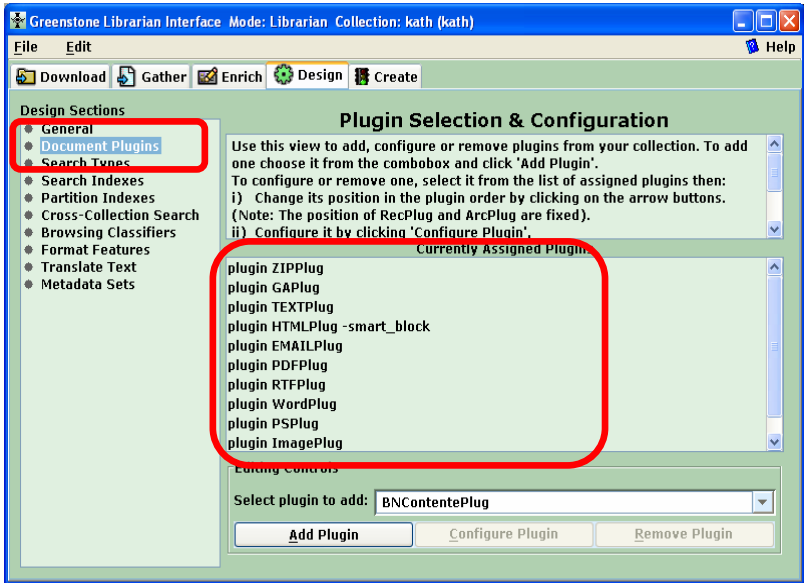
# Agenda

- ❖ Review: Searching and browsing
- ❖ General Options
- ➔ ❖ Plugins
- ❖ Searching – indexes
- ❖ Browsing – classifiers
- ❖ Simple formatting
- ❖ Changing metadata sets
- ❖ Collection configuration file

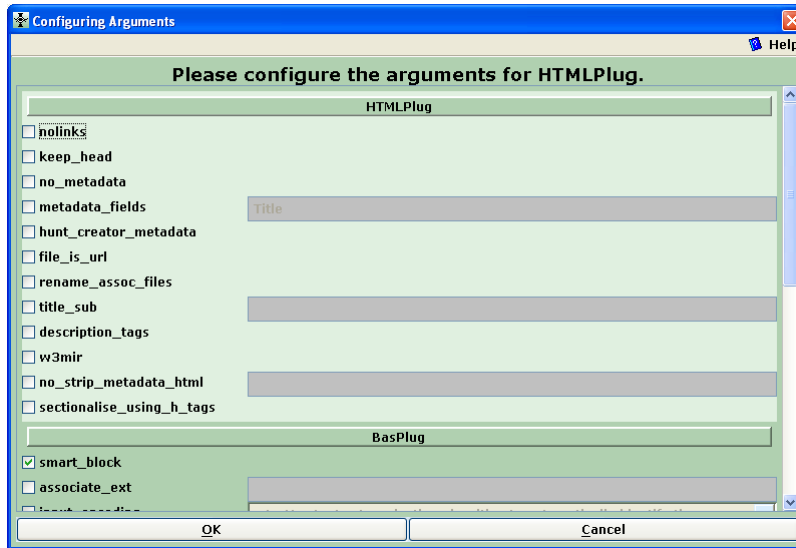
# Plugins



# Plugins



## Plugin Options



## Plugins

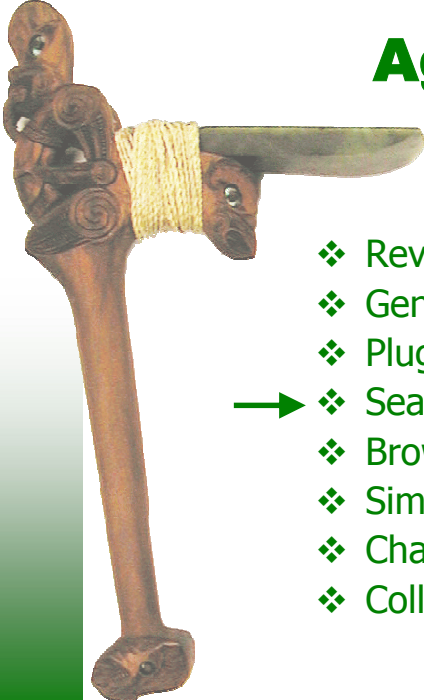
Used by collection-building software to accomplish format-specific parsing of source documents

Plugin pipeline: files are passed to each plugin in turn until one is found that can process it

- ❖ GAPlug processes doc.xml files generated during *import*
- ❖ ArcPlug processes filelist in *archives.inf*
- ❖ RecPlug recurses through a directory structure

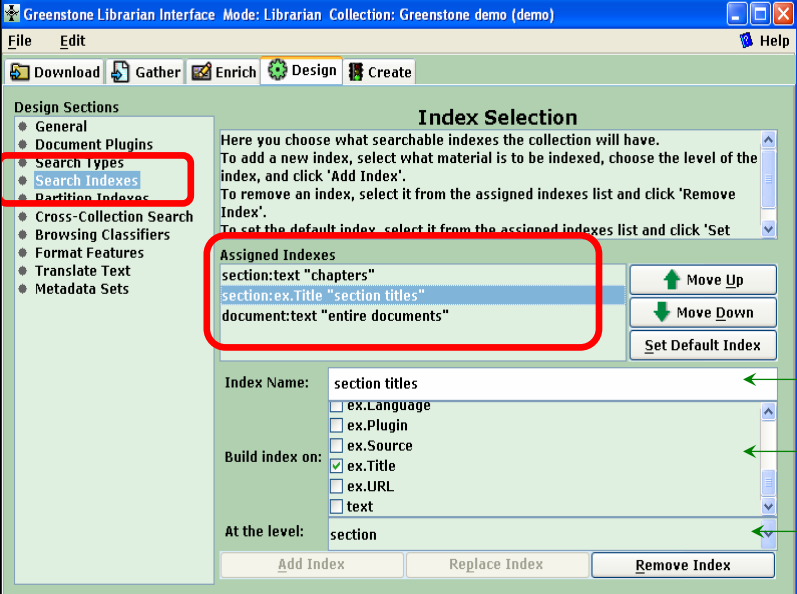
**TEXTPlug**  
**HTMLPlug**  
**EMAILPlug**  
**WORDPlug**  
**RTFPlug**  
**PDFPlug**  
**PSPlug**  
**ImagePlug**  
**PPTPlug**  
**ISISPlug**  
**TCCPlug ...**

# Agenda



- ❖ Review: Searching and browsing
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# Search Indexes



**Index Selection**

Here you choose what searchable indexes the collection will have.  
 To add a new index, select what material is to be indexed, choose the level of the index, and click 'Add Index'.  
 To remove an index, select it from the assigned indexes list and click 'Remove Index'.  
 To set the default index, select it from the assigned indexes list and click 'Set'.

**Assigned Indexes**

section:text "chapters"	Move Up
section:ex.Title "section titles"	Move Down
document:text "entire documents"	Set Default Index

Index Name: section titles

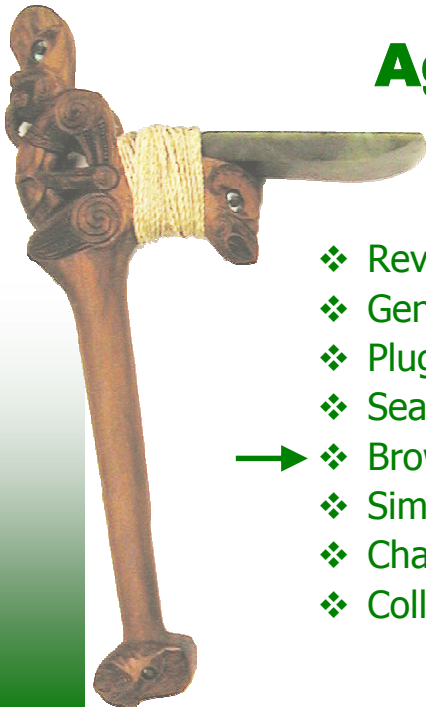
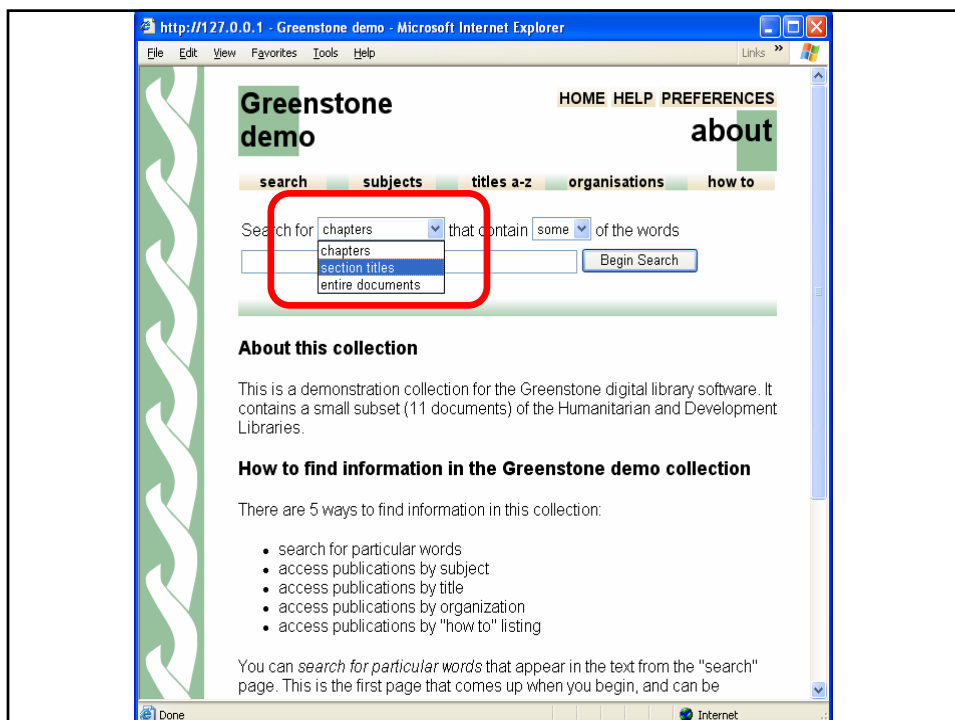
Build index on: ☒ ex.Title

At the level: section

Buttons: Add Index, Replace Index, Remove Index

Annotations on the right:

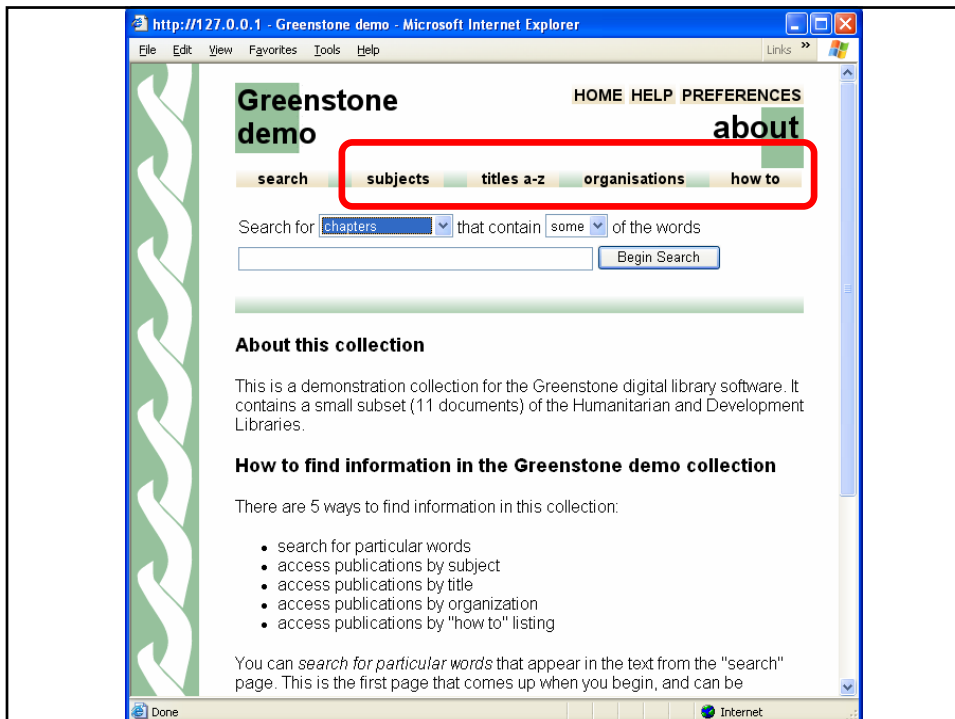
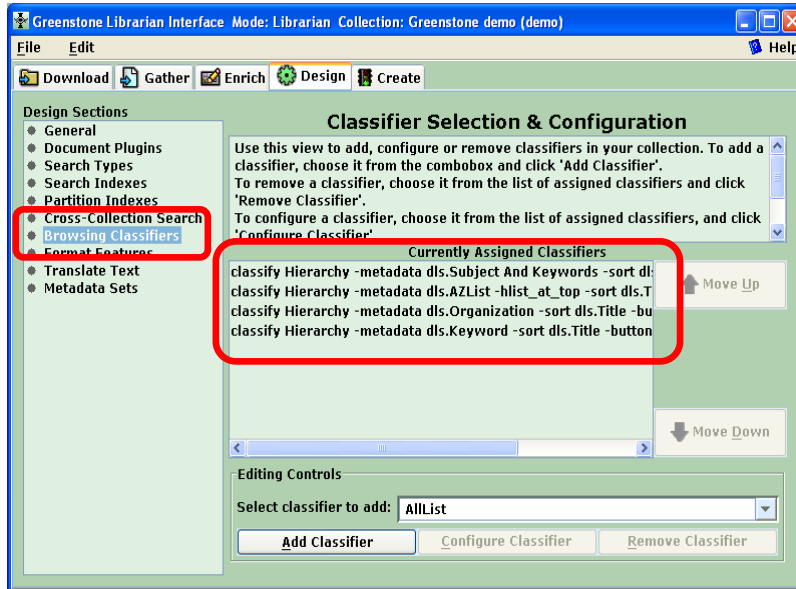
- name on menu (points to Index Name)
- "text", or any metadata (points to Build index on)
- document, section, or paragraph (points to At the level)



## Agenda

- ❖ Review: Searching and browsing
- ❖ General Options
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- ➔ ❖ Browsing – classifiers
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- ❖ Changing metadata sets
- ❖ Collection configuration file

## Browsing Classifiers



AZList classifier (Title)

classify AZList -metadata Title

Titles A-Z - Netscape

Humanity Development Library 2.0

HOME HELP PREFERENCES

titles a-z

search subjects titles a-z organization how to

A B C D E F G H I J L M N O P Q R S T U V W 0-9 Magazines

About the International Institute of Rural Reconstruction

Above and beyond

Abstracts on sustainable agriculture 1992 Gate- GTZ

... records: A review of current issues: A RAMP study

... the microbusiness a teaching manual - A Handbook for Volunteers

African agriculture: The critical choices

Agribusiness in India: Lessons and visions (1996)

Agricultural development workers training manual - Volume III Crops

Agricultural development workers training manual: Volume I Orientation for Trainers

Agricultural development workers training manual: Volume II Extension Skills

Agricultural development workers training manual: Volume IV Livestock

Agricultural Expansion and Pioneer Settlements in the Humid Tropics (1988)

Agricultural extension

Agricultural Extension: Guidelines for extension workers in rural areas

Agricultural policy in India: need for a fresh look (1992)

Agriculture and rural development in the 1990's and beyond: redesigning the chemistry between state and institutions of development (1992)

Agro-forestry in the African Humid Tropics (1982)

AZList classifier (Title) for the demo collection

classify AZList -metadata Title

Titles A-Z - Netscape

demo collection

HOME HELP PREFERENCES

titles a-z

search subjects titles a-z organization how to

Butterfly Farming in Papua New Guinea

The Courier - N°159 - Sept- Oct 1996 Dossier Investing in People Country Reports: Mali ; Western Samoa

The Courier - N°160 - Nov - Dec 1996 - Dossier Habitat - Country reports: Fiji ,

... 158-July- August 1996 Dossier Communication and the media - Country report Cape Verde

Development in practice: Toward Gender Equality

Farming snails 1: Learning about snails; Building a pen; Food and shelter plants

Farming snails 2: Choosing snails; Care and harvesting; Further improvement

Little Known Asian Animals With a Promising Economic Future

Managing Tropical Animal Resources - Crocodiles as a Resource for the Tropics

Microlivestock - Little-Known Small Animals with a Promising Economic Future

The Water Buffalo: New Prospects For An Underutilized Animal (1984)

AZCompactList  
classifier  
(Creator)

Authors A-Z - Microsoft Internet Explorer

HOME HELP PREFERENCES

nzdl  
publications

search titles a-z authors a-z dates phrases

A-H I-P R-Y

Apperley, M. D. (7)

Bainbridge, D. (29)

Beisile, C. (1)

Bell, T. C. (4)

Blandford, A. (4)

Boddie, S. J. (10)

Bray, B. (1)

Bray, Z. (1)

Britland, M. (1)

Buchanan, G. R. (8)

Chu, Y. (1)

Chu, Y. C. (1)

Chui, C. (1)

Cockburn, A. (1)

Connaway, L. S. (1)

classify AZCompactList -metadata dc.Creator -mingroup 1

DateList  
classifier

Dates - Netscape

HOME HELP PREFERENCES

niupepa:  
māori newspapers

search series dates

1842-1843 1844-1846 1848 1855-1856 1857 1858 1859 1860 1861 1862  
1863-1882 1883 1884 1885-1886 1887-1897 1903-1904 1905-1906 1907-1908  
1909-1910 1911-1912 1913-1914 1915-1916 1917-1918 1919-1921

1842 January

Te Karere o Nui Tirenī: Volume 1: January 1, 1842  
Number 1

Te Karere o Nui Tirenī: Volume 1: February 1, 1842  
Number 2

March

Te Karere o Nui Tirenī: Volume 1: March 1, 1842  
Number 3

April

Te Karere o Nui Tirenī: Volume 1: April 1, 1842  
Number 4

May

Te Karere o Nui Tirenī: Volume 1: May 2, 1842  
Number 5

June

Te Karere o Nui Tirenī: Volume 1: June 1, 1842  
Number 6

July

Te Karere o Nui Tirenī: Volume 1: July 1, 1842  
Number 7

August

Te Karere o Nui Tirenī: Volume 1: August 1, 1842  
Number 8

September

Te Karere o Nui Tirenī: Volume 1: September 1, 1842  
Number 9

Te Karere o Nui Tirenī: Volume 1: September 10, 1842

classify DateList -metadata Date



searchsubjects**titles a-zorganization**how to

```
classify Hierarchy -hfile org.txt
-metadata Organization -sort Title
```

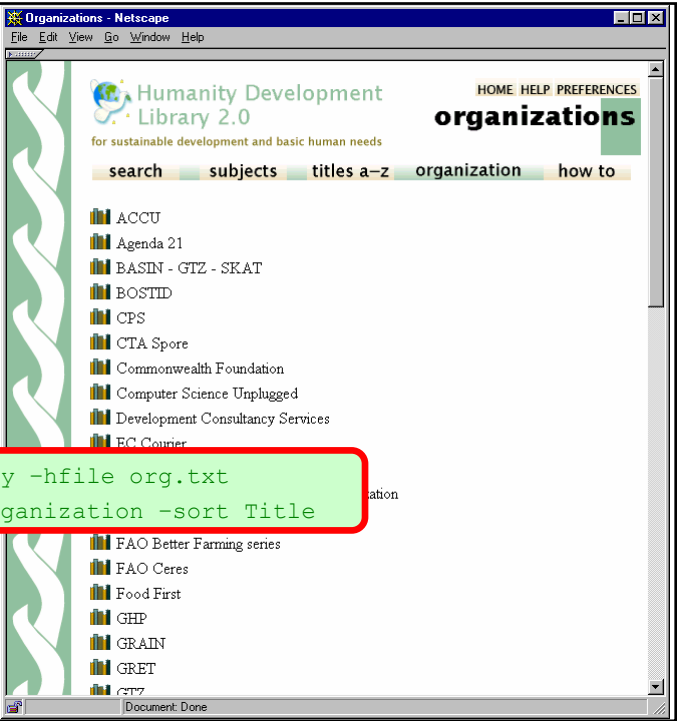
**etc/org.txt**

identifier (matches *Organization* metadata value)  
position in the hierarchy that the browser implements  
title to be displayed in hierarchy browser


accu	1	ACCU
ag21	2	"Agenda 21"
bgz	3	"BASIN - GTZ - SKAT"
bostid	4	BOSTID
cps	5	CPS
cpas	6	"CTA Spore"
cf	7	"Commonwealth Foundation"
csu	8	"Computer Science Unplugged"
dcs	9	"Development Consultancy Services"
ecc	11	"EC Courier"
ecdg8	12	"EC DG8"
echo	13	"Educational Concerns for Hunger Organization"
fao	14	FAO
faobfs	15	"FAO Better Farming series"
ceres	16	"FAO Ceres"
ff	17	"Food First"

**Hierarchy classifier (Organization)**

```
classify Hierarchy -hfile org.txt
-metadata Organization -sort Title
```

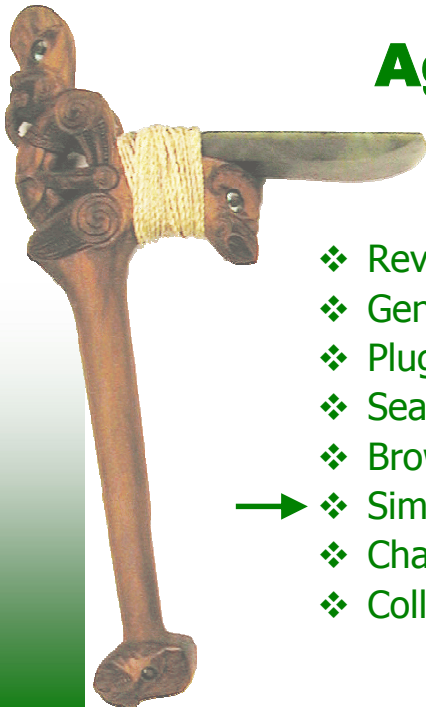


**Hierarchy classifier (Organization)**



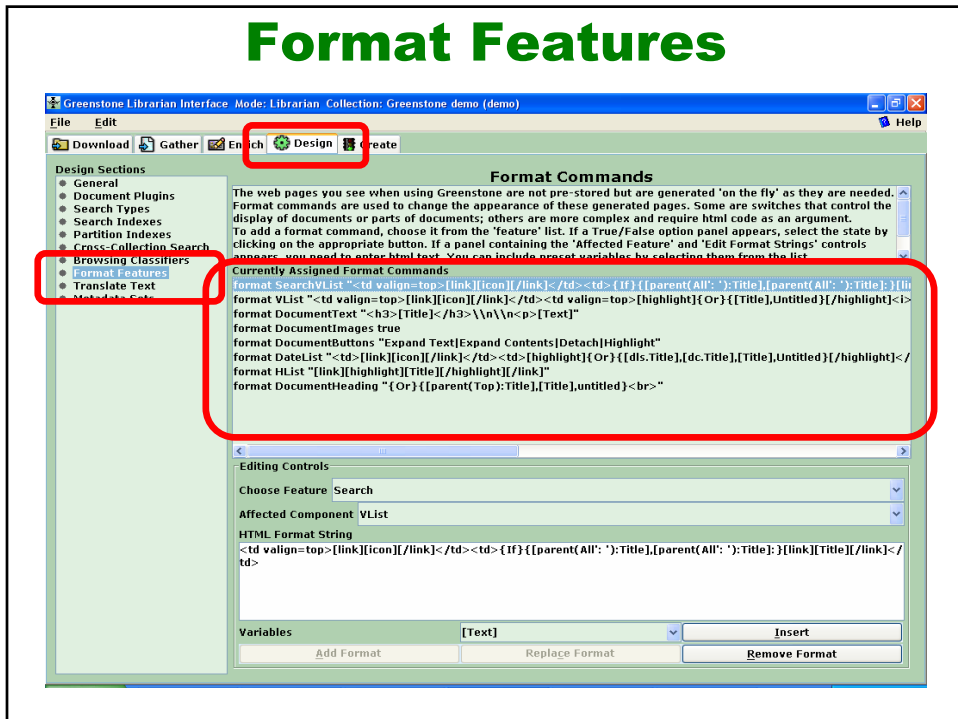
```
classify Hierarchy -hfile org.txt  
-metadata Organization -sort Title
```

**Agenda**



- ❖ Review: Searching and browsing
- ❖ General Options
- ❖ Plugins
- ❖ Searching – indexes
- ❖ Browsing – classifiers
- ➔ ❖ Simple formatting
- ❖ Changing metadata sets
- ❖ Collection configuration file


## Format Features



## Format Statements


- ❖ **VList** – vertical lists: search, classifiers, document table of contents
- ❖ **HList** – horizontal lists: classifiers
- ❖ **SearchVList, CL1VList** – individual vertical lists
- ❖ **DocumentImages/Document Heading/DocumentContents** – document header display
- ❖ **DocumentText** – document display

Search VList



The screenshot shows a Microsoft Internet Explorer window with the URL <http://www.nzdl.org> and the title "results 1 - 20 for query: food". The page features a navigation bar with links: HOME, HELP, PREFERENCES, and a large "search" button. Below the navigation bar, there are tabs for "search", "subjects", "titles a-z", "organisations", and "how to". The "search" tab is selected. A search form contains the text "Search for chapters that contain some of the words" and a search box with the word "food". A "Begin Search" button is next to the search box. Below the search form, the "results" section shows a word count of 4571 and a message: "More than 50 documents matched the query." A list of search results is displayed, each with a document icon and a title. The results include: "Ideas for action: Save, recycle and do not pollute: Pesticides: [Food safety practices](#)", "Recording and- using indigenous knowledge: A manual: Part 5 - Question guides: [Food and nutrition](#)", "Homemaking handbook for village workers in many countries: Section II - What you will teach: Food and nutrition: [Food needs vary](#)", "Homemaking handbook for village workers in many countries: Section II - What you will teach: Food and nutrition: [Your government is concerned](#)", "Homemaking handbook for village workers in many countries: Section II - What you will teach: Food and nutrition: [What is nutrition?](#)", "Basic Concepts in Environment, Agriculture and Natural Resources Management: An information kit: Ecological basics: [The food chain](#)", and "Traditional field crops: [Introduction](#)". A red box highlights the "search" tab and the list of search results.


CL1 VList



The screenshot shows a Microsoft Internet Explorer window with the URL <http://www.nzdl.org> and the title "Subjects - Microsoft Internet Explorer". The page features a navigation bar with links: HOME, HELP, PREFERENCES, and a large "subjects" button. Below the navigation bar, there are tabs for "search", "subjects", "titles a-z", "organisations", and "how to". The "subjects" tab is selected. A list of subjects is displayed, each with a small icon and a title. The subjects include: "Industry, Manufacture and Services", "Energy , Renewable energies, Household energy", "Water, Sanitation and Sewage Disposal", "Ecology, Biodiversity, Natural resources, Environment, Waste Disposal", "Plant and Crop Production, Protection, and Processing", "Fishery and Aquaculture", "Politics, Public administration, Law and Legislation, Peace, Human Rights", "Health, Nutrition, Medicine", "Sustainable Development, International cooperation, Projects; NGO, Organizations, Poverty and Hunger Alleviation, Basic Human Needs", "Society, Culture, Community, Woman, Youth, Population", "Education and Training", "Communication, Information and Documentation", "Agriculture and Food Processing", "Animal Husbandry and Animal Product Processing", "Settlements, Housing, Building - Infrastructure Construction (Roads etc)", "Development Periodicals and Magazines", and "Business, Micro-enterprises, Management, Marketing, Finance, Microfinance". A red box highlights the "subjects" tab and the list of subjects.

CL2  
HList

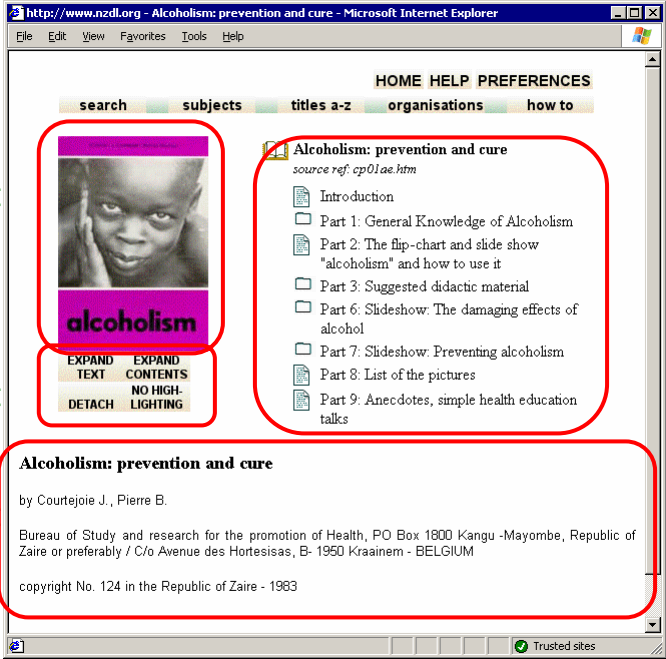
CL2  
VList



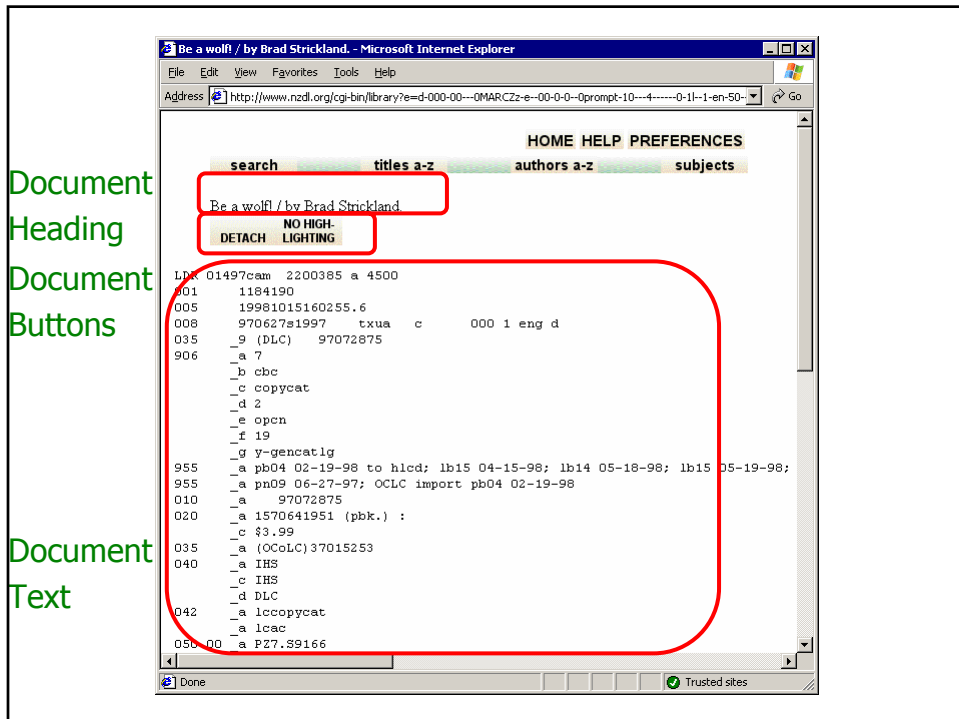
Document  
Images

Document  
Buttons

Document  
Text



Document  
VList



## Format Statements: Components

- ❖ HTML
- ❖ [Text] *displays document text*
- ❖ [Title], [Howto] ... *displays metadata*
- ❖ [link] ... [/link] *links to document*
- ❖ [srclink] ...[/srclink] *links to original file*
- ❖ [icon], [srcicon] *page/book/bookshelf, source icons*
- ❖ *If and Or statements conditional processing*

## Format Statements

❖ {If}{test, if true, if false}

❖ Test can be:

- [metadata] exists
- [metadata] eq 'value' equals
- [metadata] ne 'value' not equals

❖ Examples

```
{If}{[ex.Source],(<i>[ex.Source]</i>)}
```

```
{If}{[numleafdocs],[ex.Title],[dc.Creator]}
```

```
{If}{[ex.FileFormat] eq PDF, [srclink] PDF
document [/srclink]}
```

## Format Statements

❖ {Or}{[metadata1],[metadata2]...}

❖ Chooses the first metadata that exists

❖ Last item can be plain text

❖ Examples

```
{Or}{[dls.Title],[dc.Title],[ex.Title],Untitled}
```

```
{Or}{[ex.thumbicon],[ex.srcicon]}
```

## HTML page

```
<html>
  <head>
    <title>The page title</title>
  </head>
  <body formatting-attributes>
    Page content goes here
  </body>
</html>
```

## HTML elements

- ❖ <b>**Bold**</b>, <i>*italics*</i>, <u>underline</u>
- ❖ <br/> a line break
- ❖ <p>a paragraph</p>
- ❖ <table><tr><td>cell content</td></tr></table>
- ❖ <a href="link address">link text</a>
- ❖ 



## Format statements

- ❖ Defaults provided to give reasonable results for most cases
- ❖ Interpreted at run-time – no need to rebuild
- ❖ More information: FAQ

[http://www.greenstone.org/cgi-bin/library?  
a=p&p=faqcustomize#customizeformat](http://www.greenstone.org/cgi-bin/library?a=p&p=faqcustomize#customizeformat)

**List classifier (Howto)**

The screenshot shows a Netscape browser window displaying the 'How to' page of the 'Humanity Development Library 2.0'. The page has a navigation bar with links: HOME, HELP, PREFERENCES, and a 'how to' section. Below this is a search bar and a list of topics. Three red boxes highlight specific format statements used in the list classifier, with arrows pointing to the corresponding links on the page:

- Box 1: `<br>[link] [Howto] [/link]` (points to 'achieve gender equality')
- Box 2: `format CL4VList "<br>[link] [Howto] [/link]"` (points to 'add fish, mollusc and crab culture or duck raising as livelihoods for coastal communities')
- Box 3: `classify Hierarchy hfile=sub.txt metadata=Subject sort=Title`  
`classify HDLList metadata=Title`  
`classify Hierarchy hfile=org.txt metadata=Organization sort=Title`  
`classify List metadata=Howto` (points to 'apply the latest sustainable energy technologies')

### Formatting search results

[srclink] [srcicon] [/srclink]

[link] [icon] [/link]

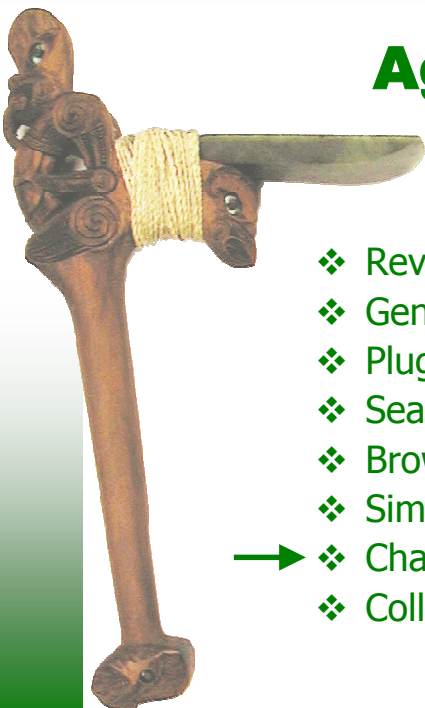
[ex.Title]

<br>(<i>[ex.Source]</i>)

### Formatting document text

format DocumentImages true

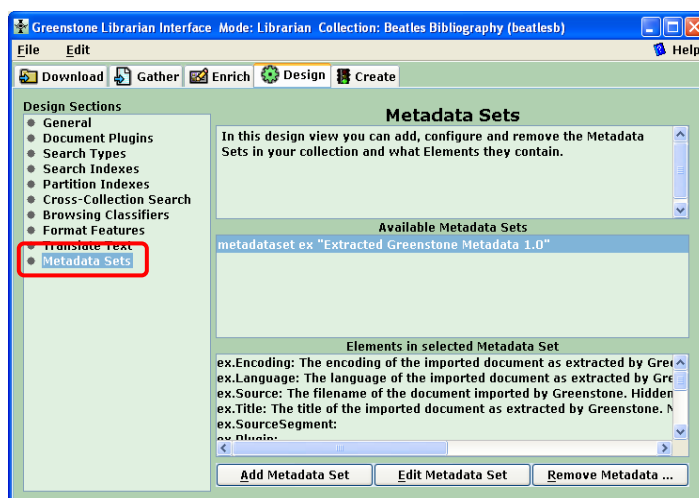
format DocumentText "<h3>[Title]</h3>\n\n<p>[Text]"



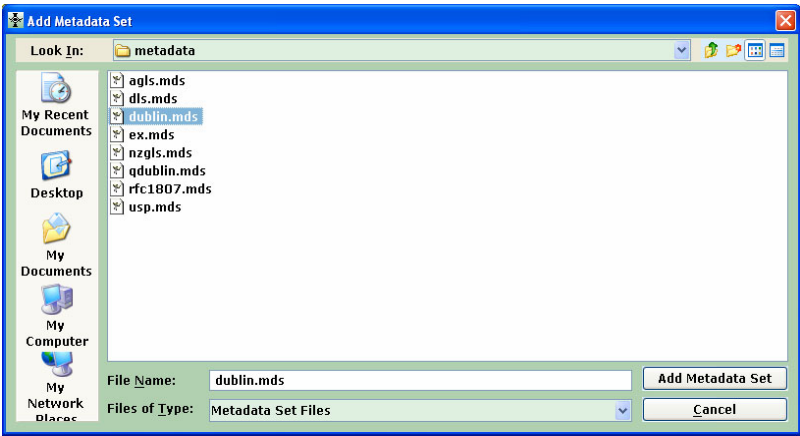
## Agenda

- ❖ Review: Searching and browsing
- ❖ General Options
- ❖ Plugins
- ❖ Searching – indexes
- ❖ Browsing – classifiers
- ❖ Simple formatting
- ➔ ❖ Changing metadata sets
- ❖ Collection configuration file

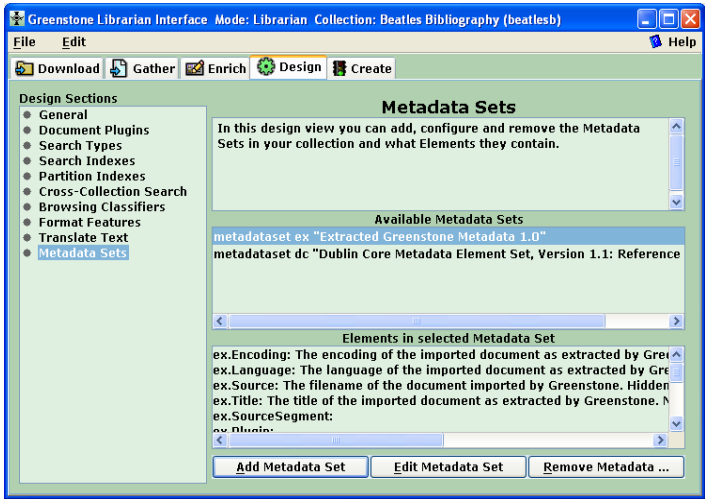
## Metadata Sets

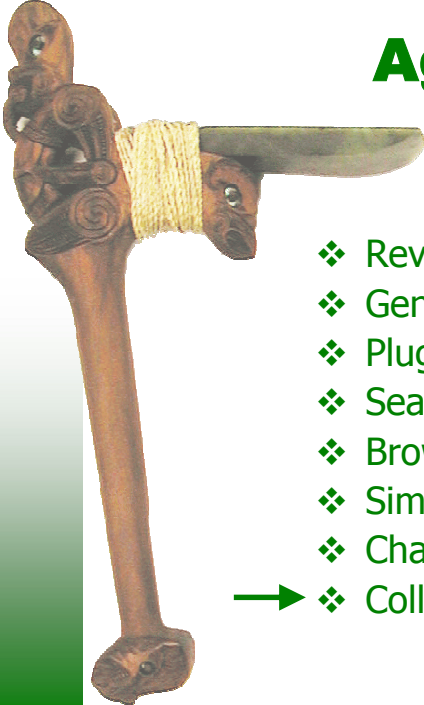


# Add Metadata Set



# Metadata Sets





# Agenda

- ❖ Review: Searching and browsing
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- ➔ ❖ Collection configuration file

## Collection configuration file

- ❖ name, icon, etc
- ❖ description
- ❖ email of creator
- ❖ search indexes
- ❖ plugins
- ❖ classifiers

*how to format*

- ❖ documents
- ❖ query results
- ❖ classifiers

```

creator          sjboddie@cs.waikato.ac.nz
maintainer       sjboddie@cs.waikato.ac.nz
public           true
beta             true

indexes          section:text section:Title document:text
defaultindex     section:text

plugin           GAPlug
plugin           ArcPlug
plugin           RecPlug

classify         Hierarchy hfile=sub.txt metadata=Subject sort=Title
classify         HDList metadata=Title
classify         Hierarchy hfile=org.txt metadata=Organization sort=Title
classify         List metadata=Howto

format           SearchVList "<td valign=top>[link][icon][link]</td>
                        <td>{If}{[parent(All': '):Title],[parent(All': '):Title]: }
                        [link][Title][link]</td>"
format           CL4VList "<br>[link][Howto][link]"
format           DocumentImages true
format           DocumentText "<h3>[Title]</h3>\n\n<p>[Text]"

collectionmeta   collectionname "greenstone demo"
collectionmeta   collectionextra "This is a demonstration collection for the
                        Greenstone digital library software.\nIt contains a small
                        subset (11 books) of the Humanity Development Library"
collectionmeta   iconcollectionsmall "/gsdl/collect/demo/images/demosm.gif"
collectionmeta   iconcollection "/gsdl/collect/demo/images/demo.gif"
collectionmeta   .section:Title "section titles"
collectionmeta   .document:text "entire books"
collectionmeta   .section:text "chapters"

```

## **Greenstone Librarian Interface demo: configuring collections**

### **Documentation and Help**

- ❖ *User's Guide* (user.pdf)

Includes substantial sections on the GLI  
(Sections 3.1 and 3.2, 36 pp)

- ❖ Tooltips

- ❖ On-line help

**Questions?**  
**Comments?**  
**Discussion?**  
**Feedback form!**