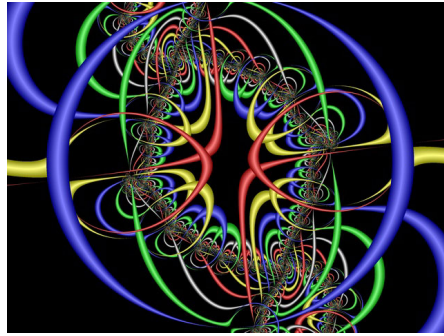


Librarian Interface: Advanced features



Course material prepared by

Greenstone Digital Library Project
University of Waikato, New Zealand

and National Centre for Science Information,
Indian Institute of Science, Bangalore

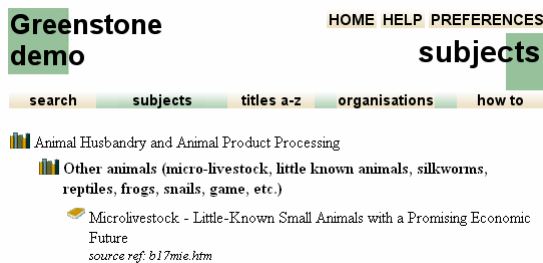
Agenda



- ❖ Hierarchical metadata
- ❖ Exploding metadata databases
- ❖ UnknownPlug
- ❖ Editing metadata sets
- ❖ GLI modes
- ❖ Search types
- ❖ Partition indexes
- ❖ Cross collection searching
- ❖ Translate text
- ❖ Phind phrase index

Hierarchical Metadata

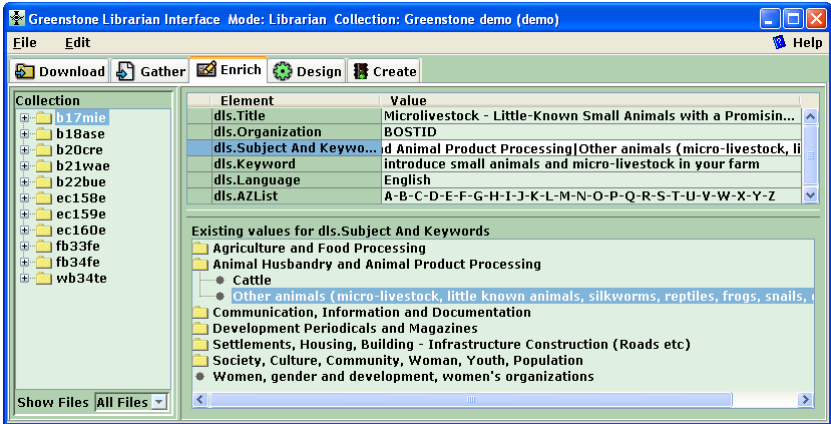
❖ Metadata is often hierarchical:



❖ How is this done in Greenstone?

Hierarchical Metadata

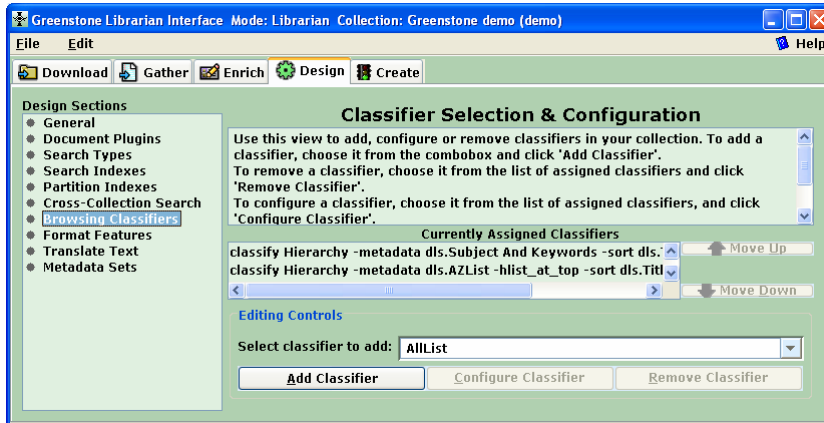
❖ In the GLI's Enrich pane, use the pipe character (|) to separate the levels



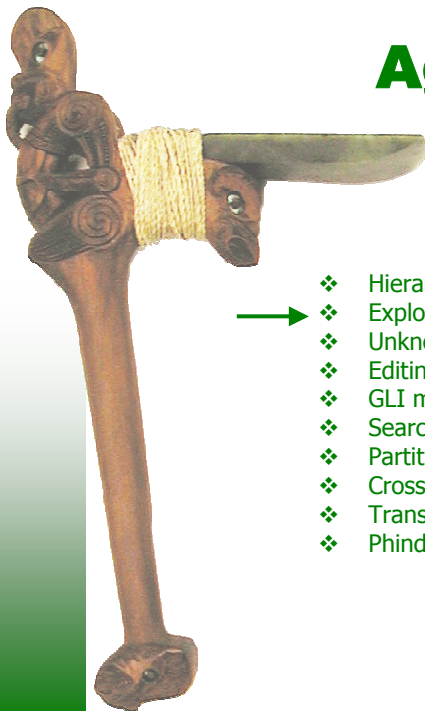
❖ Preview the hierarchy in the value tree

Hierarchical Metadata

- ❖ To convert the metadata into a hierarchical browsing structure, the Hierarchy classifier must be used



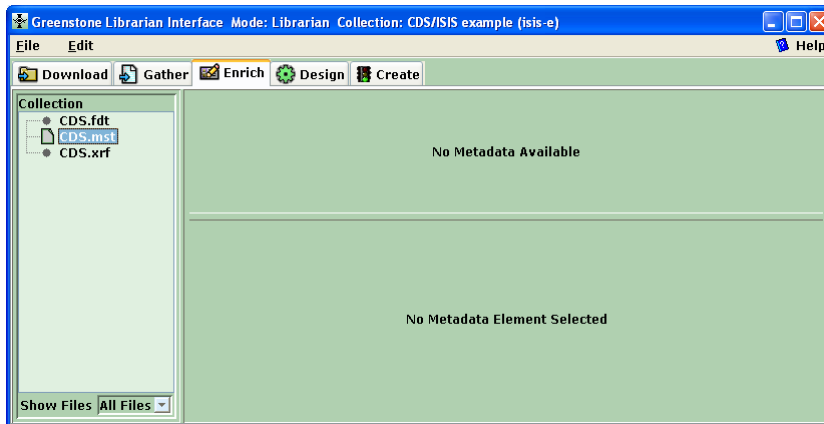
Agenda



- ❖ Hierarchical metadata
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Exploding metadata databases

- ❖ The GLI does not show metadata extracted from bibliographic files: CDS/ISIS, MARC etc.

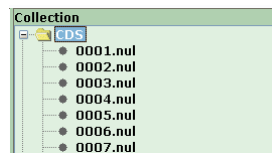
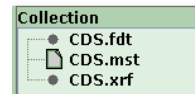


Why not?

- ❖ The GLI treats these files just like any other: it shows extracted and assigned metadata, but not the file's contents
 - Double-click the file to open it in the normal editor for this file type eg. WinISIS for CDS/ISIS files
- ❖ In rare cases you might want to convert these files into Greenstone format, allowing the metadata records to be visible and editable from the GLI
- ❖ This is irreversible: there's no going back!
 - Keep a backup of the original file

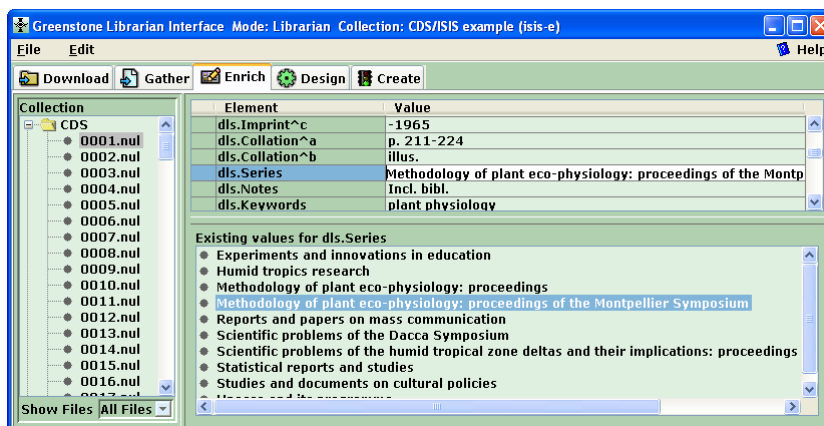
Exploding Metadata Databases

- ❖ Files that can be exploded are shown with a green icon in the GLI:
- ❖ Right-click on the file and choose "Explode Metadata Database"
- ❖ You will be prompted to map the metadata into a metadata set
- ❖ When complete, the file will be replaced with a folder containing a file for each record:



Exploding Metadata Databases

- ❖ The metadata can now be viewed and edited:

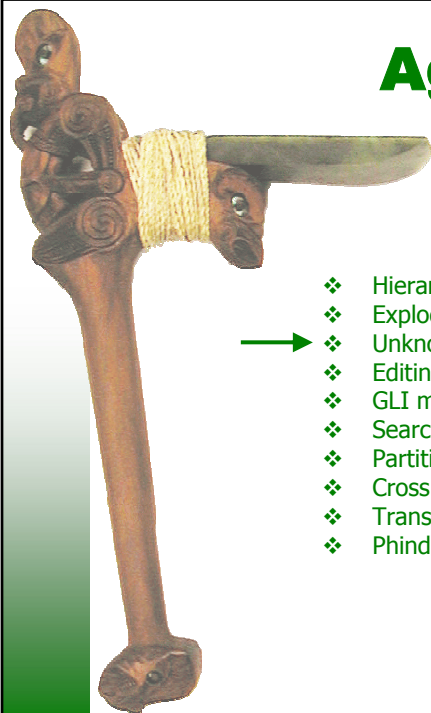


- ❖ Note: the GLI is *not* a real database system
 - Only feasible with a small number of records

Exploding Metadata Databases

- ❖ Change classifiers, index specifications and format statements to use the namespaced metadata elements
- ❖ When importing the collection, the files will now be processed by NULPlug rather than the plugin for the original file (eg. ISISPlug)

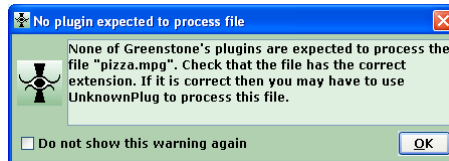
Agenda



- ❖ Hierarchical metadata
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Multimedia & UnknownPlug

- ❖ Greenstone has plugins for these multimedia file types:
 - Images (.bmp, .gif, .jpg, .png, .tif, ...): ImagePlug
 - Audio (.mp3, .ogg): MP3Plug, OggVorbisPlug
 - Video (.rm): RealMediaPlug
- ❖ What about files that Greenstone doesn't have a plugin for?



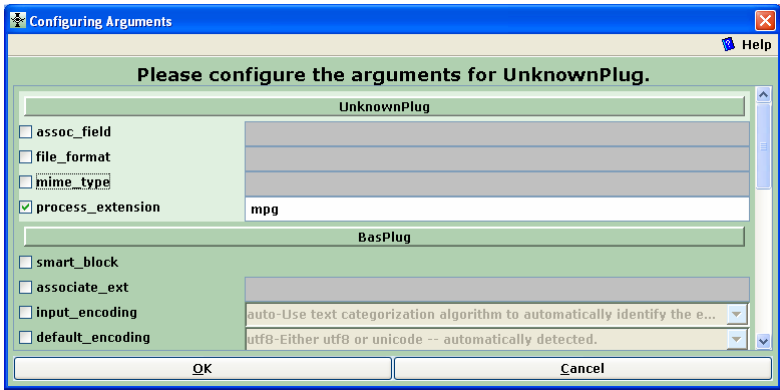
- Use UnknownPlug, a plugin that will process *any* type of file

Multimedia & UnknownPlug

- ❖ UnknownPlug knows nothing about any type of file, so it can only extract *very* basic metadata: file name and file size
 - Metadata must be manually assigned
- ❖ UnknownPlug is also unable to extract any text, so the files cannot be searched
 - Files are accessed by browsing or searching on assigned metadata

Multimedia & UnknownPlug

- ❖ In the GLI, add UnknownPlug to the collection
 - Use the “process_extension” option to tell UnknownPlug which type of files to process



Multimedia & UnknownPlug

- ❖ When the collection is built, the file will now be included in the collection:



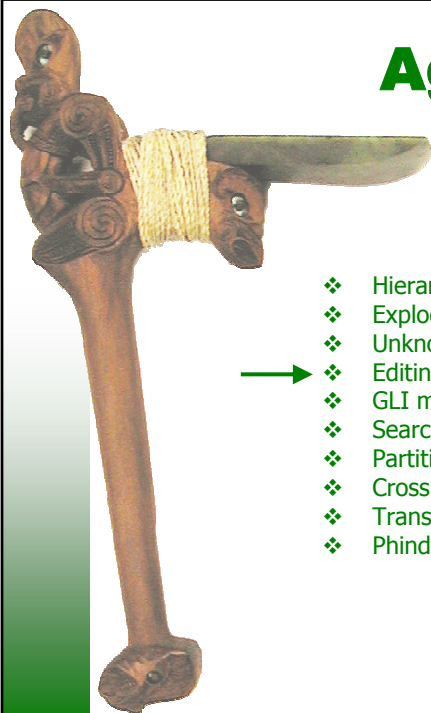
Multimedia & UnknownPlug

- ❖ Since UnknownPlug cannot extract any text, the Greenstone version of the document is very boring!



- ❖ Let's remove the link to this version
 - Edit the VList format statement, and replace
`[link][icon][link]`
with
`{If}{[ex.Plugin] ne "UnknownPlug",[link][icon][link]}`

Agenda

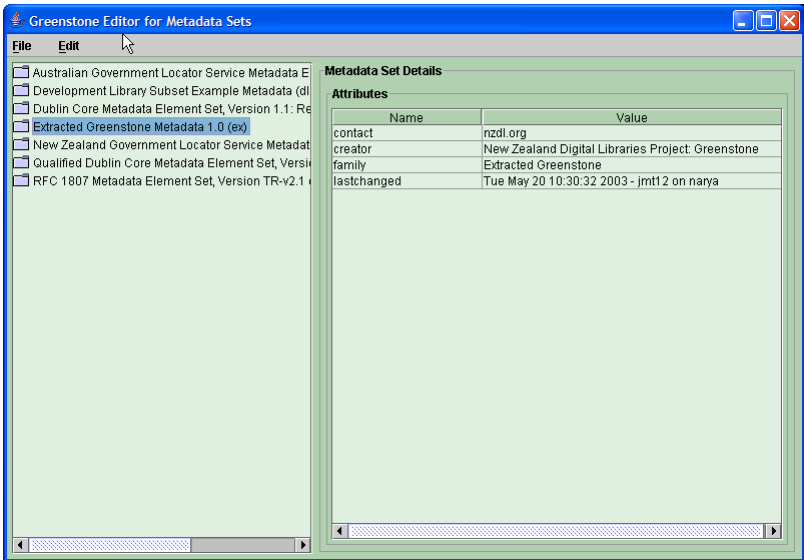


- ❖ Hierarchical metadata
- ❖ Exploding metadata databases
- ❖ UnknownPlug
- ➔ ❖ Editing metadata sets
- ❖ GLI modes
- ❖ Search types
- ❖ Partition indexes
- ❖ Cross collection searching
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- ❖ Phind phrase index

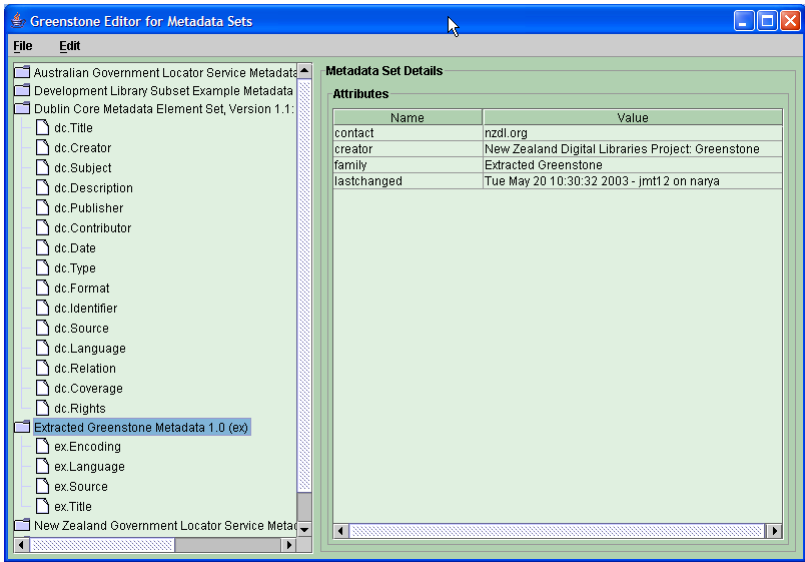
Greenstone Editor for Metadata Sets - GEMS

- ❖ What can GEMS do?
 - Create a new metadata set
 - Add metadata elements to an existing set
 - Define and edit metadata attributes
 - Inherit from an existing metadata set
 - Import an existing metadata set
 - Sets can be used in GLI

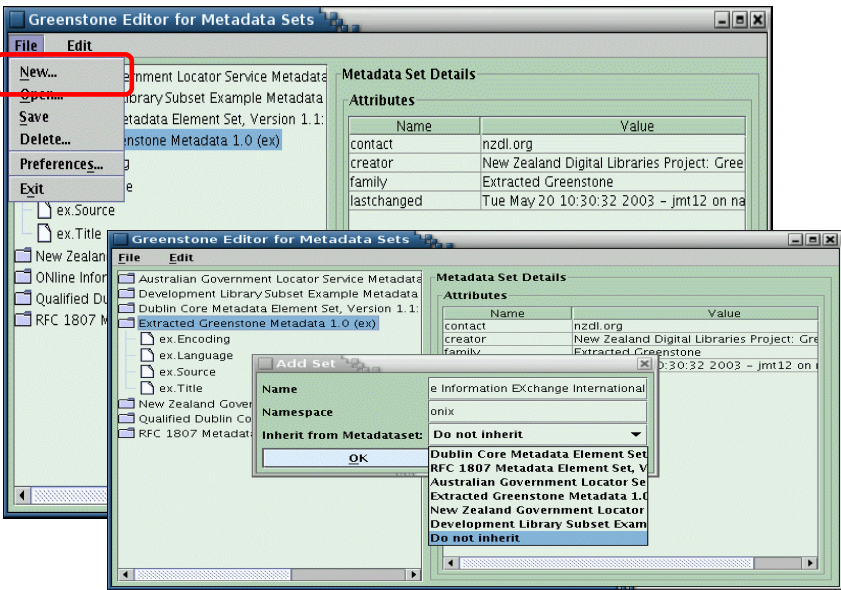
GEMS Interface



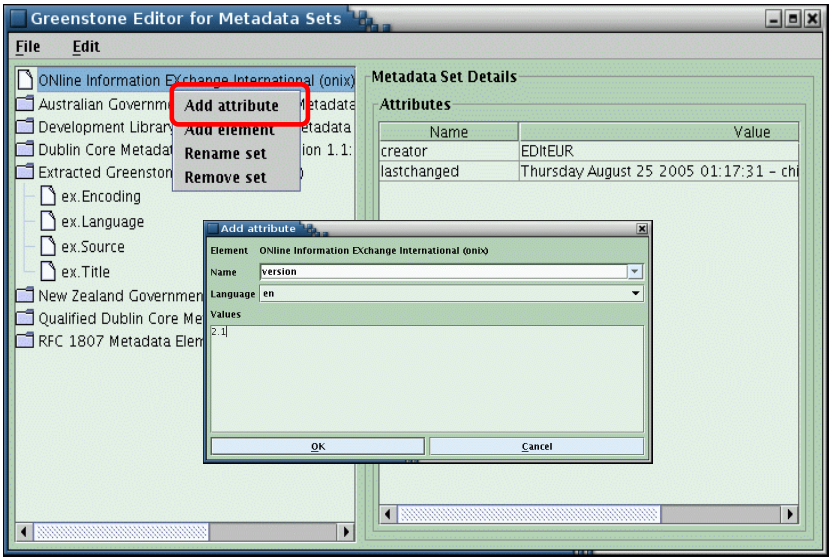
GEMS Interface



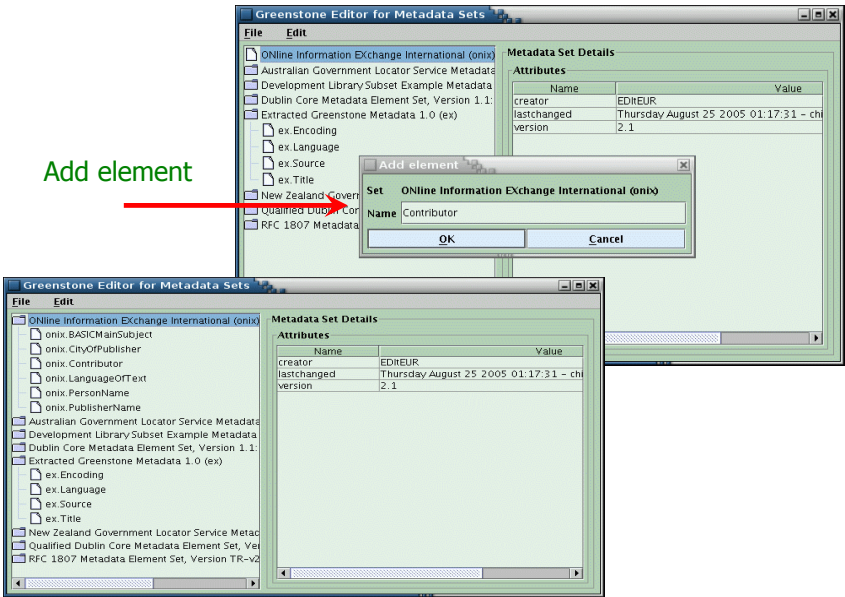
Adding a New Metadata Set



Adding Metadata Attribute



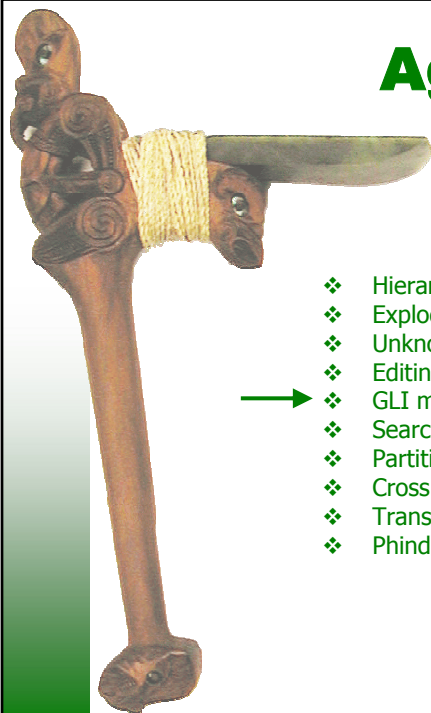
Adding Metadata Element



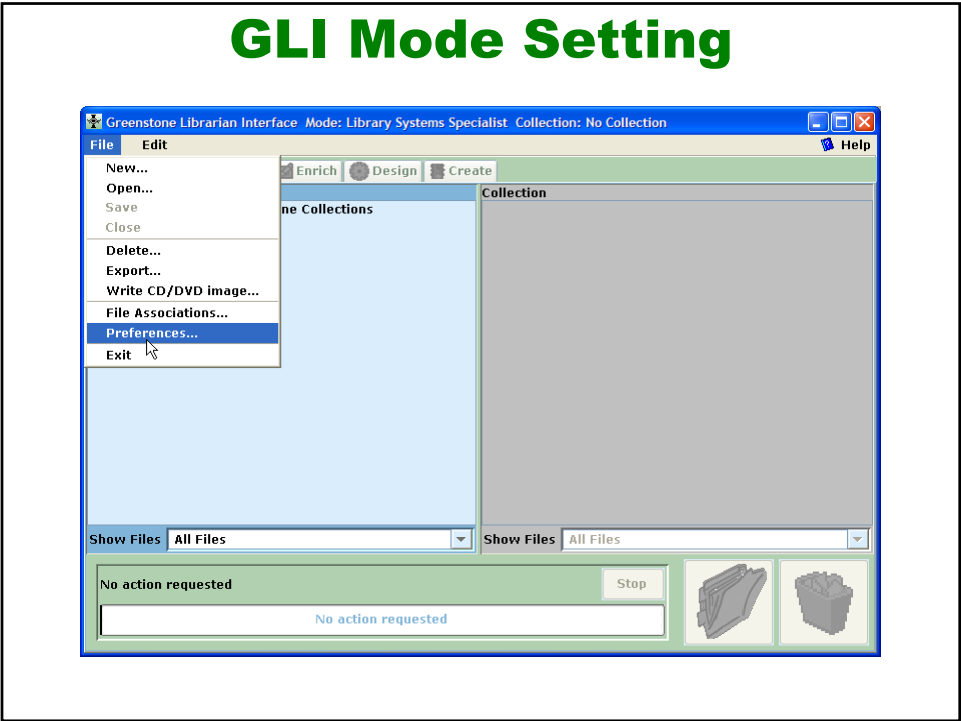
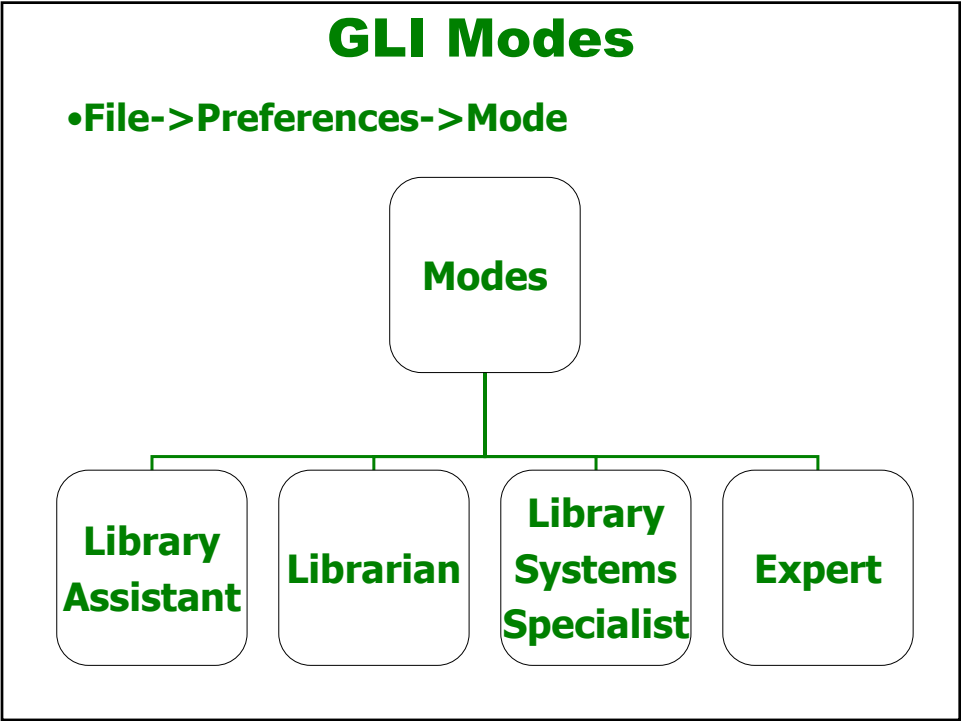
Using an existing metadata set

- ❖ Using a pre-defined metadata set
 - Must comply with Greenstone metadata XML file format
 - ❖ Write a script to convert????
 - Copy to /gsdl/gli/metadata directory

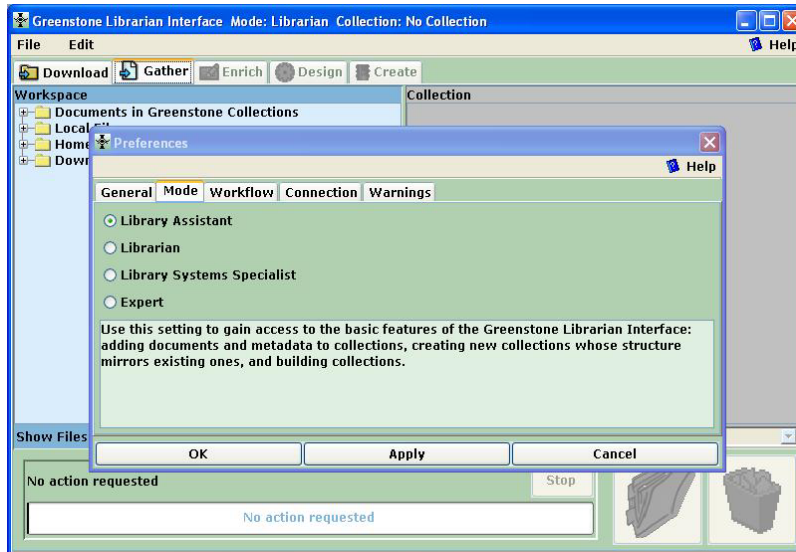
Agenda



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GLI Mode Setting



GLI Modes

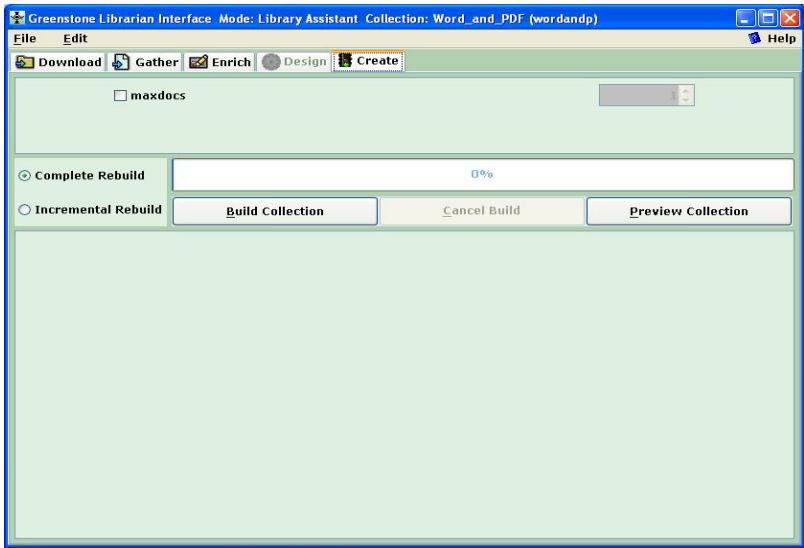
❖ Library Assistant

- Access to basic features: creating new collections; adding documents and metadata; building collections
- No design functions are available

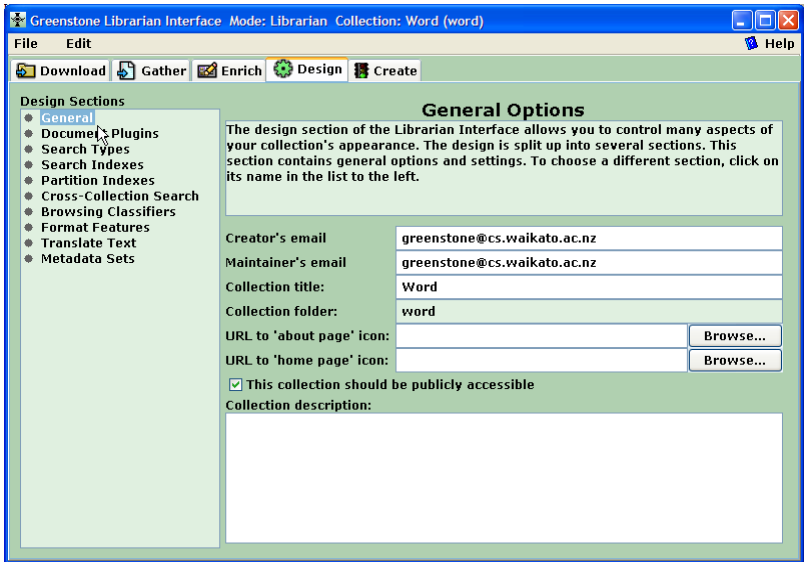
❖ Librarian

- Basic features + Design

Library Assistant Mode



Librarian Mode

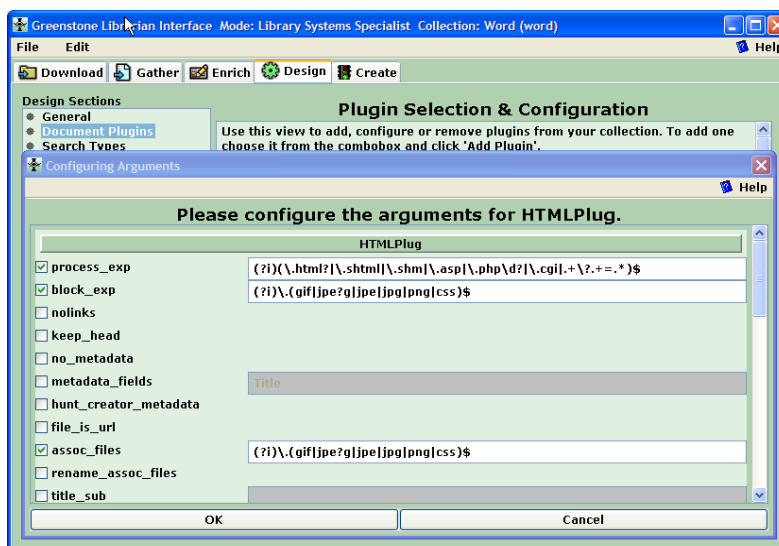


GLI Modes

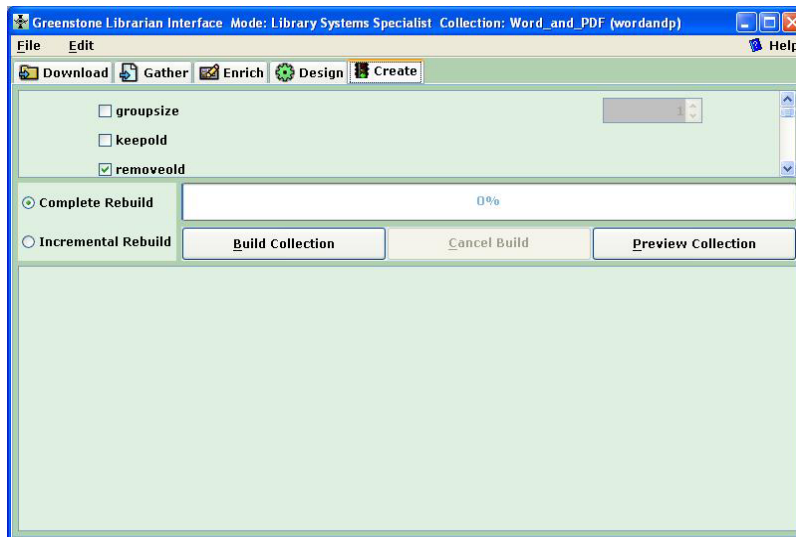
❖ Library Systems Specialist

- Full use of GLI
- Formulate regular expressions to make use of formatting features
 - ❖ For example: HTML block expression
 - `q^(?i)\.(gif|jpe?g|jpe|png|css)$^`
- Partial options for import and building

Library Systems Specialist Mode



Library Systems Specialist Mode

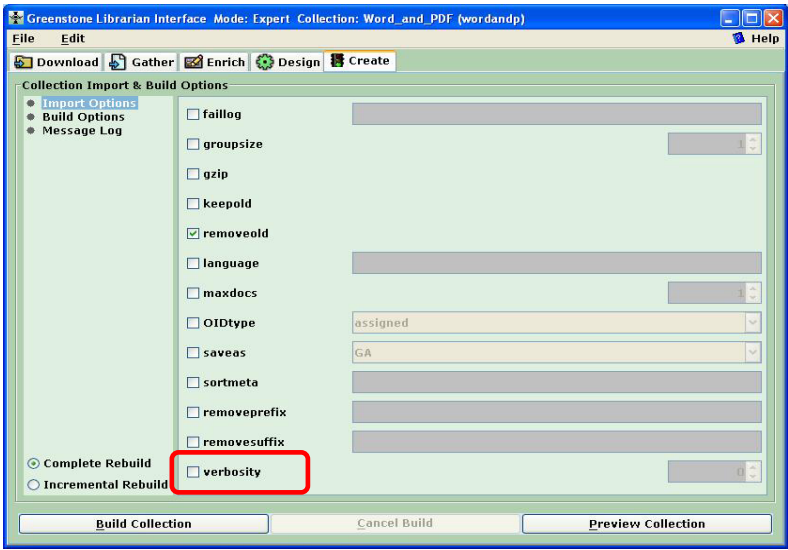


GLI Modes

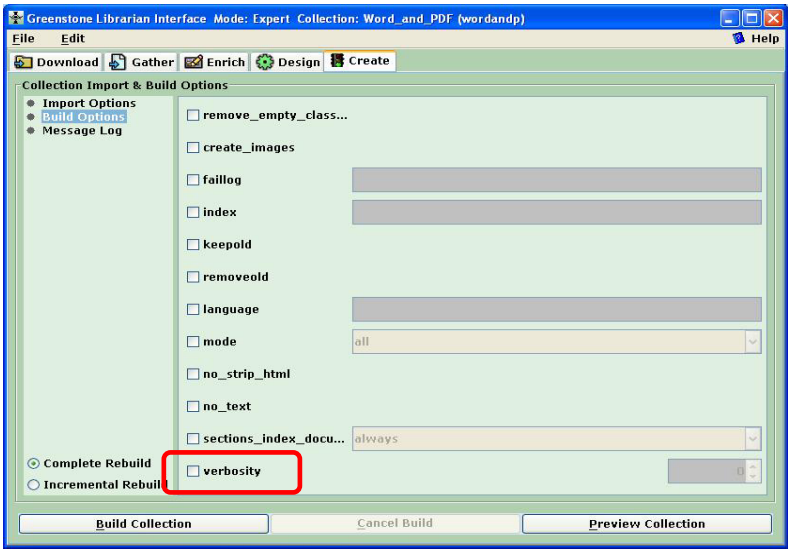
❖ Expert

- All features are enabled
- Recommended for experienced users
- Perform troubleshooting tasks
- Options to control the import and build processes
- Shows the output from the processes

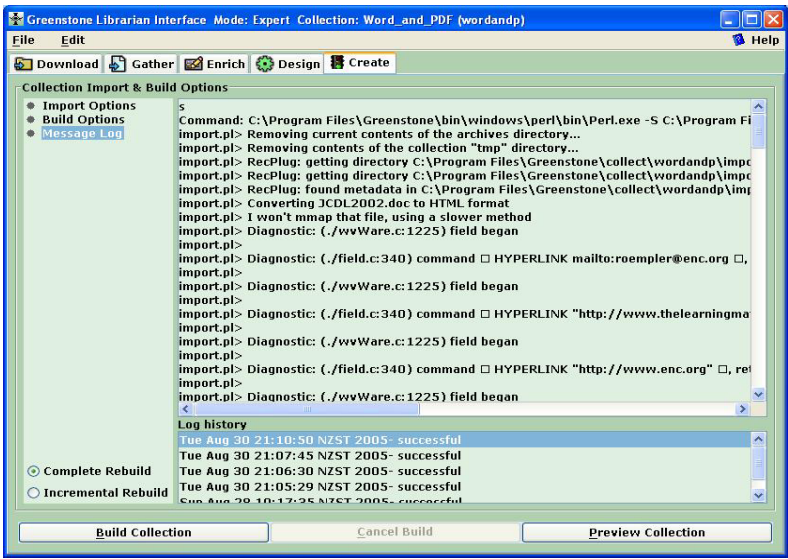
Expert Mode - Import Options



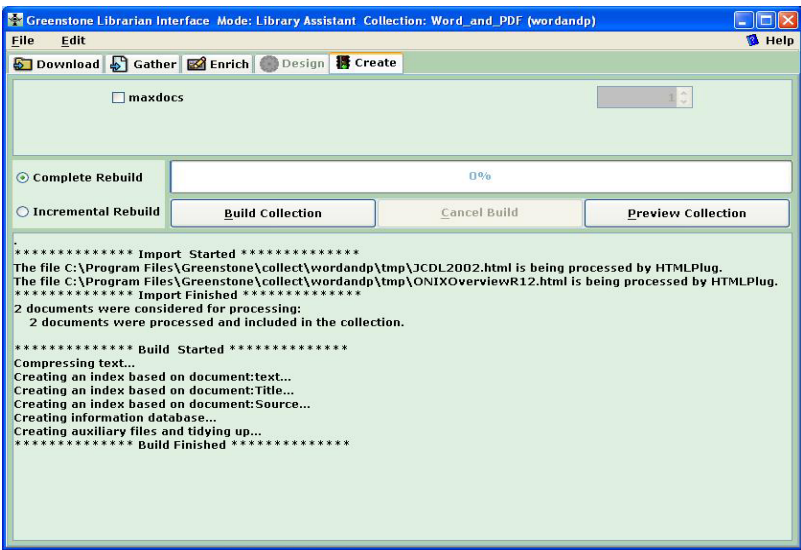
Expert Mode - Build Options



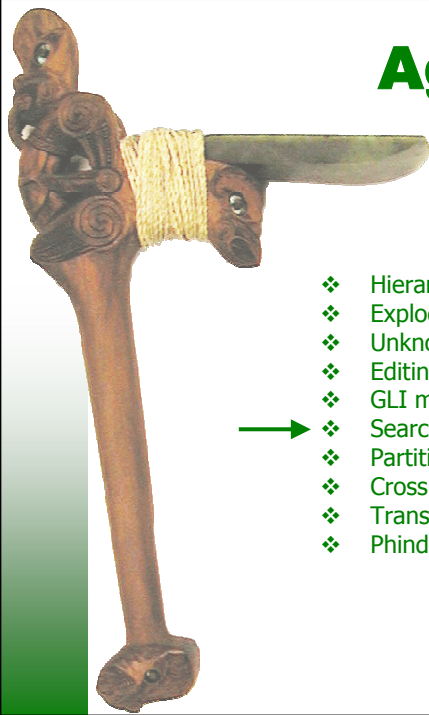
Message Log-Expert Mode



Building Message -Others



Agenda



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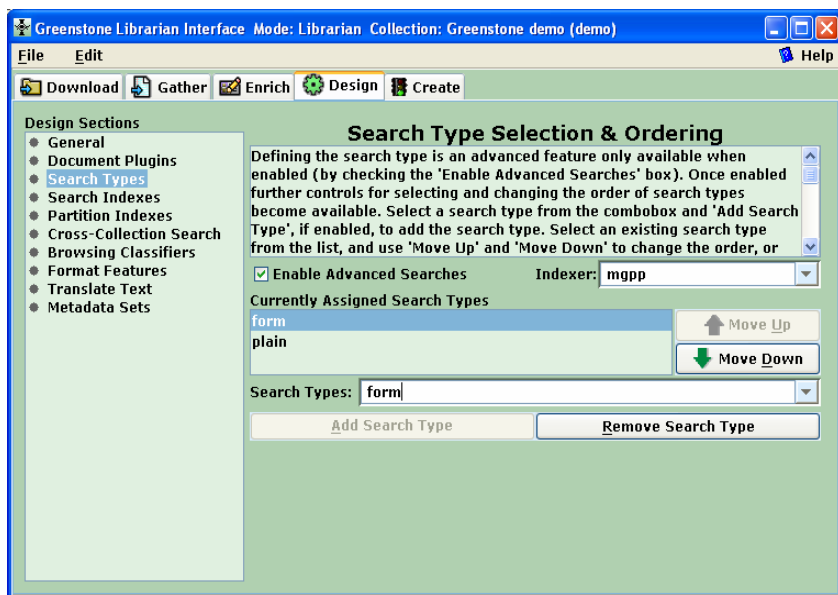
Search Types

- ❖ “Enable search types” – allows fielded searching
- ❖ MGPP/Lucene
- ❖ Form/plain – can switch on preferences
- ❖ Different index specification

Default Search Indexes



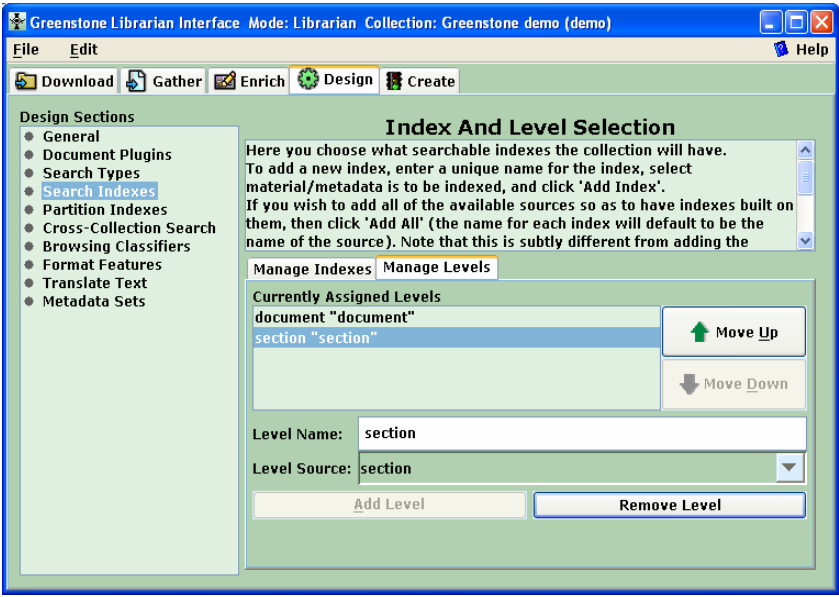
Search Types



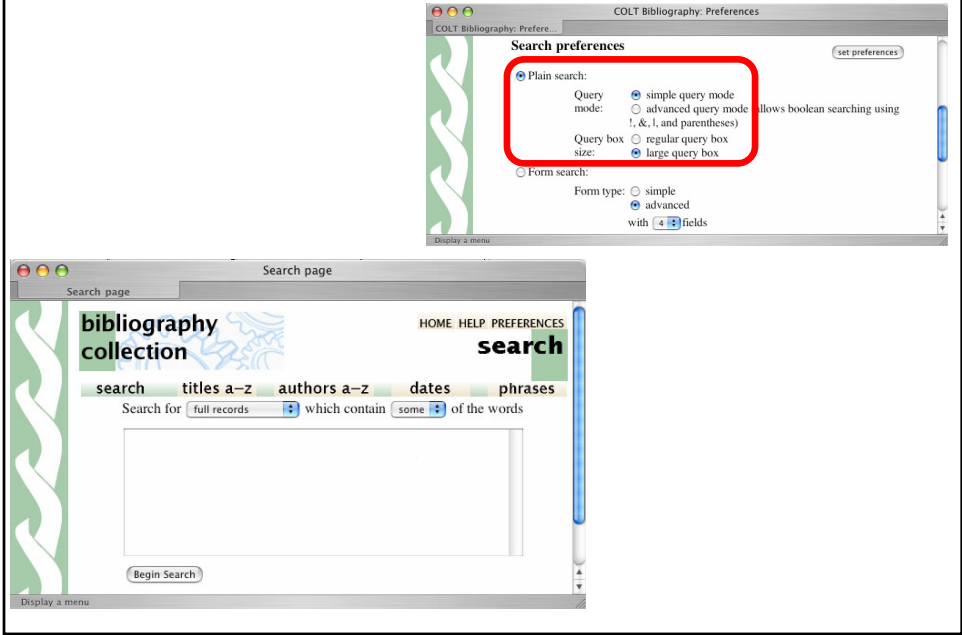
Form Search Indexes: Indexes



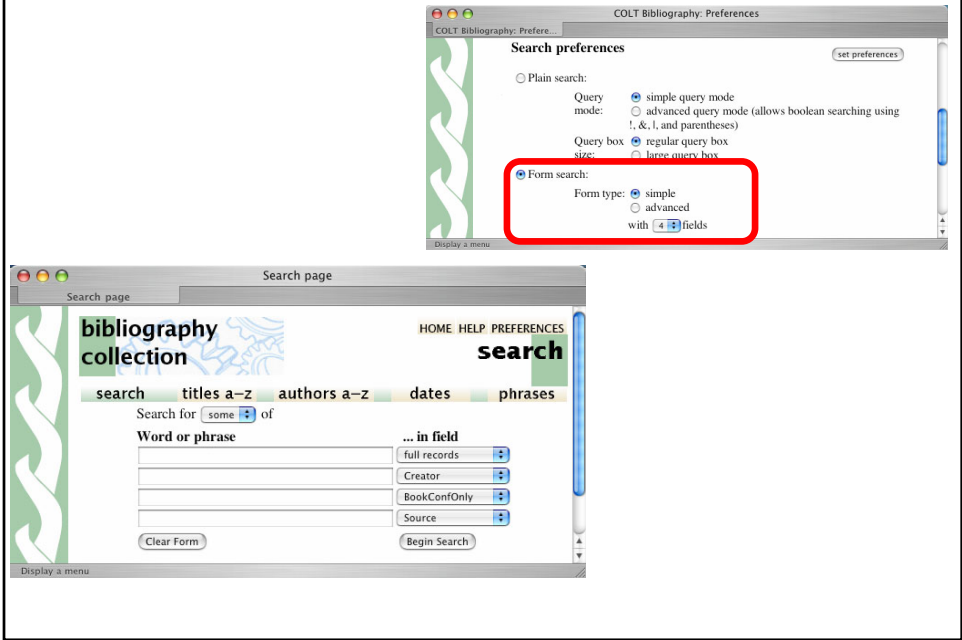
Form Search Indexes: Levels



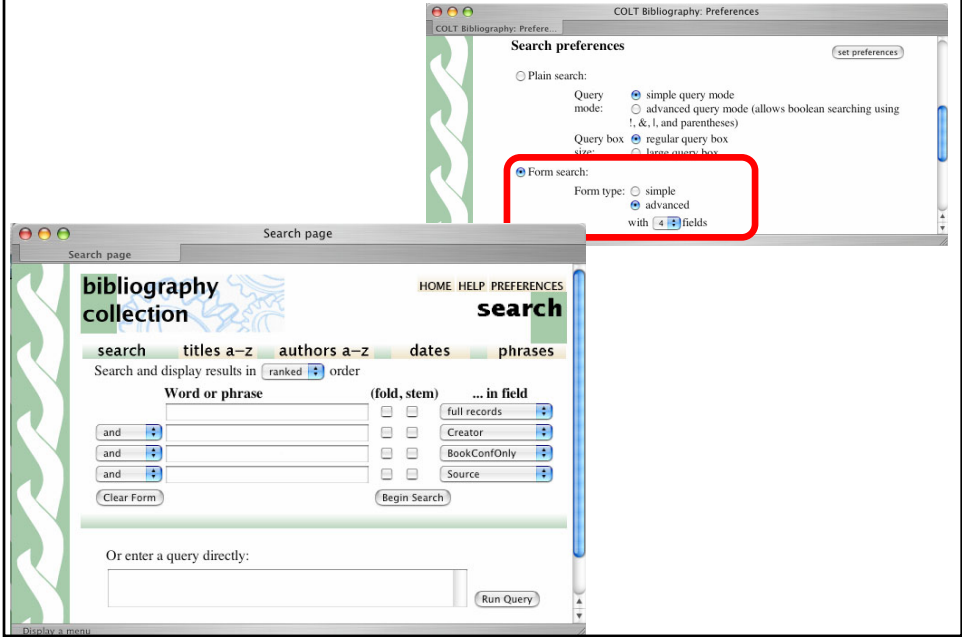
Plain search



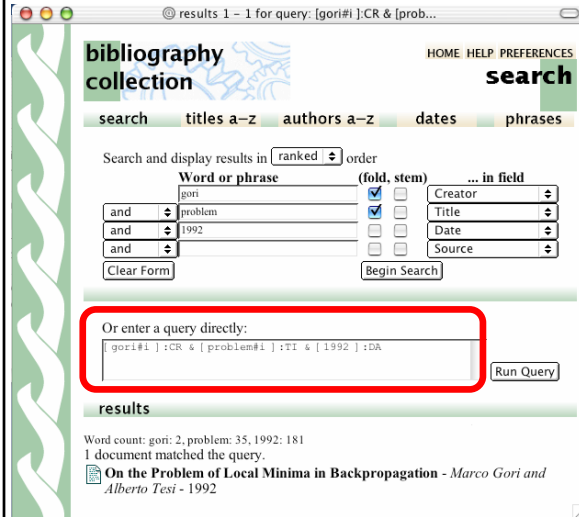
Simple form search



Advanced form search



Advanced form search



- ❖ *Fielded searching*
[terms]:Field
Specifies searching within a particular field
- ❖ *Term modifiers*
#icus /x
Stemming, casefolding and weighting
- ❖ *Fields*
TI title
CR creator
SU subject
TX text
...

Advanced plain search

COLT Bibliography: Preferences

COLT Bibliography: Prefere...

Search preferences set preferences

☒ Plain search:

Query mode: ☐ simple query mode
☒ advanced query mode (allows boolean searching using !, &, |, and parentheses)

Query box size: ☐ regular query box
☒ large query box

☐ Form search:

Form type: ☐ simple
☒ advanced
 with fields

Case differences: ☒ ignore case differences
☐ upper/lower case must match

Word endings: ☐ ignore word endings
☒ whole word must match

Search history: ☒ do not display search history
☐ display search history records

Return up to hits with hits per page.

Display a menu

❖ *Regular vs large query box*

❖ *Boolean operators*

& AND
 | OR
 ! NOT

❖ *Phrase searching ("...")*

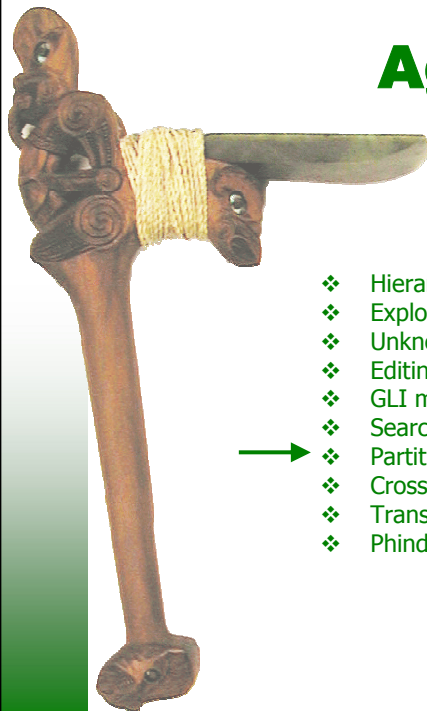
❖ *Case folding*

❖ *Stemming (word endings)*

❖ *Search history*

❖ *Number of returned results*

Agenda

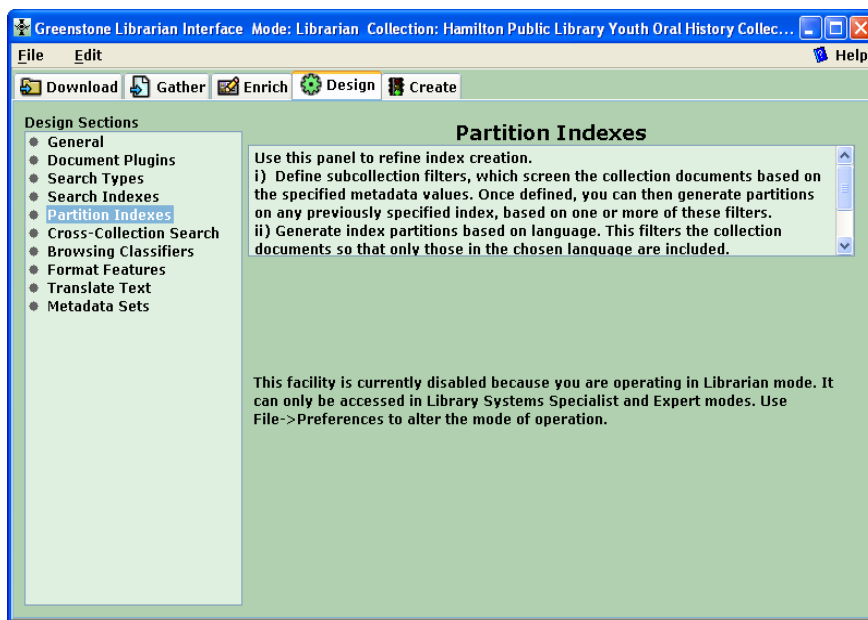


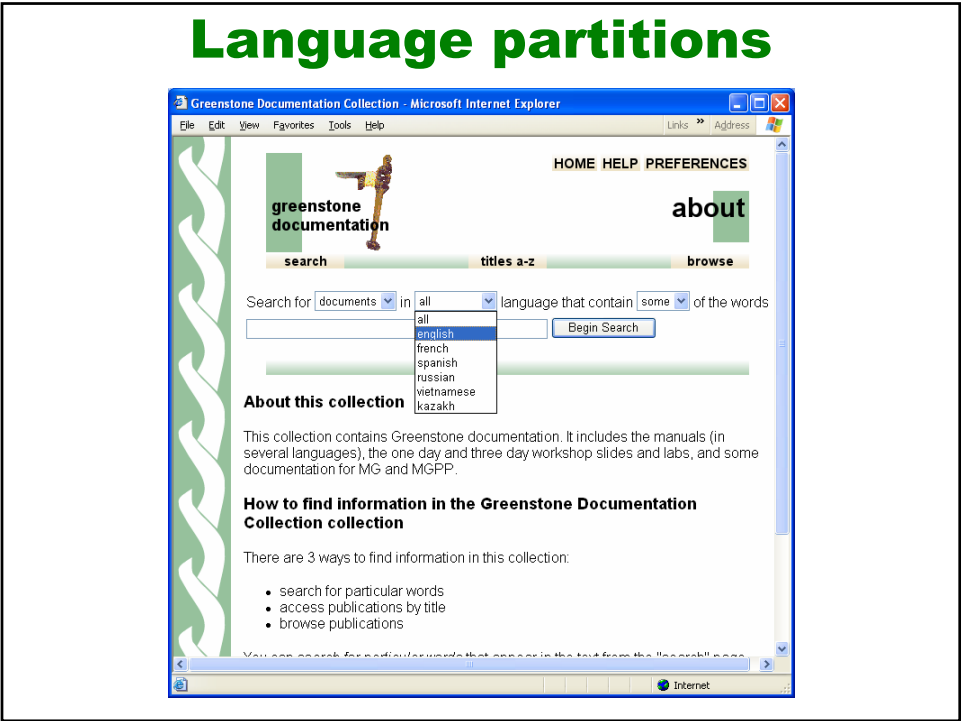
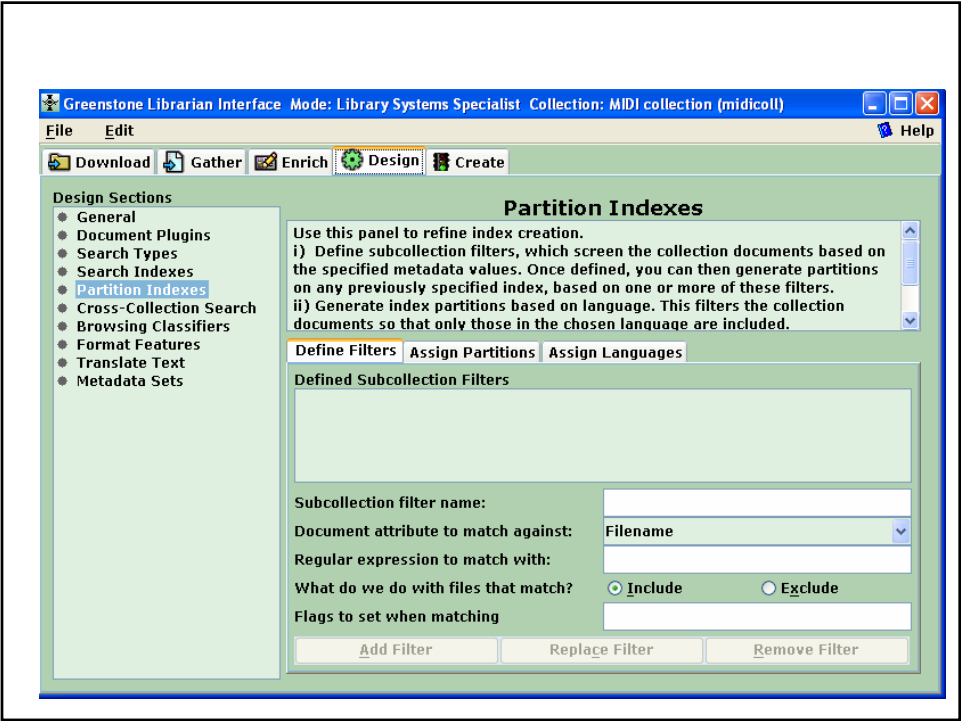
- ❖ Hierarchical metadata
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Partition Indexes

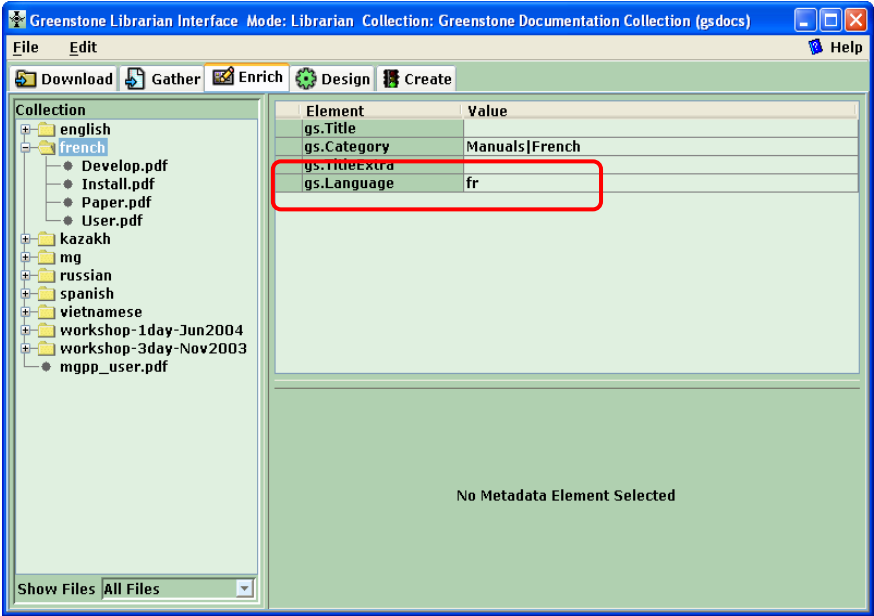
- ❖ Searching within a single collection
- ❖ The indexes are split based on subcollection definitions.
 - E.g. language, file types, metadata
- ❖ Browsing classifiers contain all the documents.
- ❖ Library Systems Specialist mode

Partition Indexes

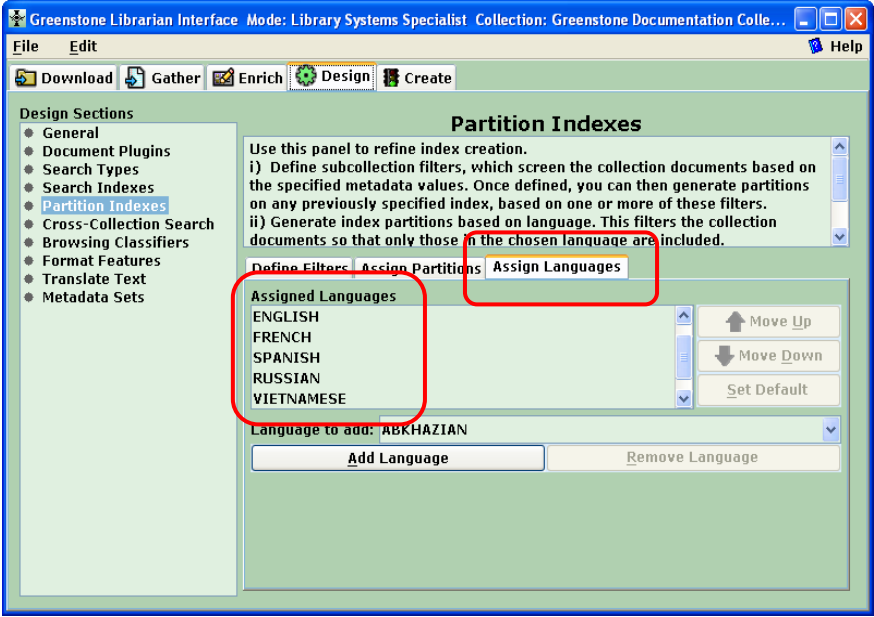




Language metadata



Language partitions



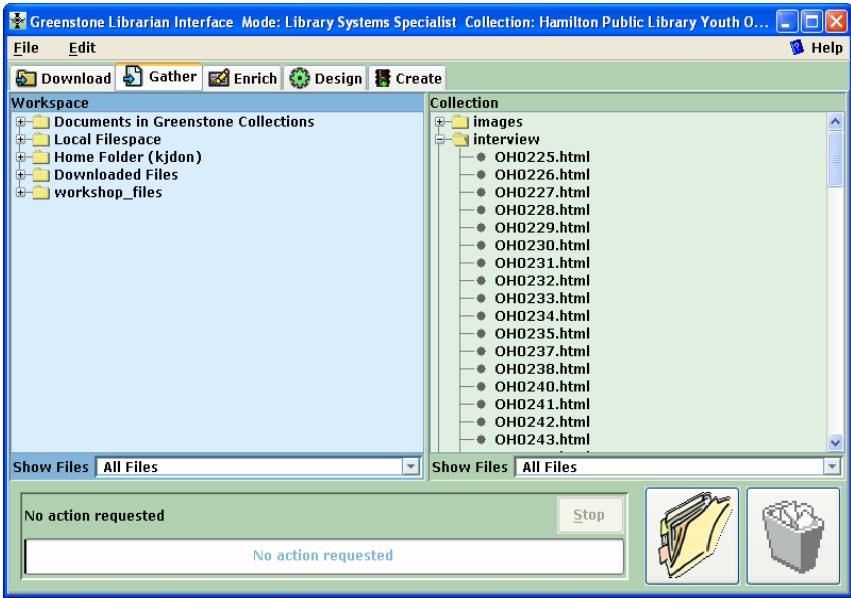
Document type partitions



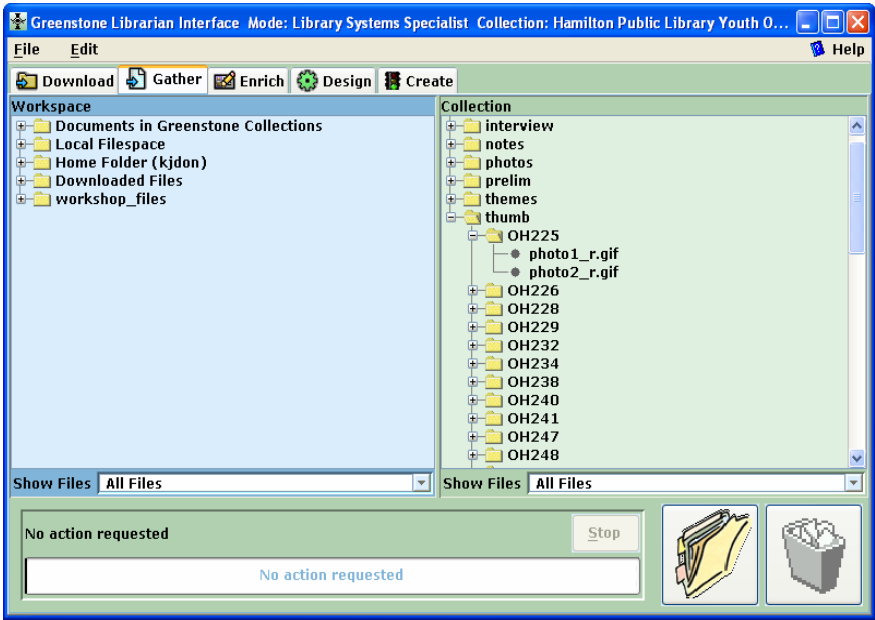
Document type partitions



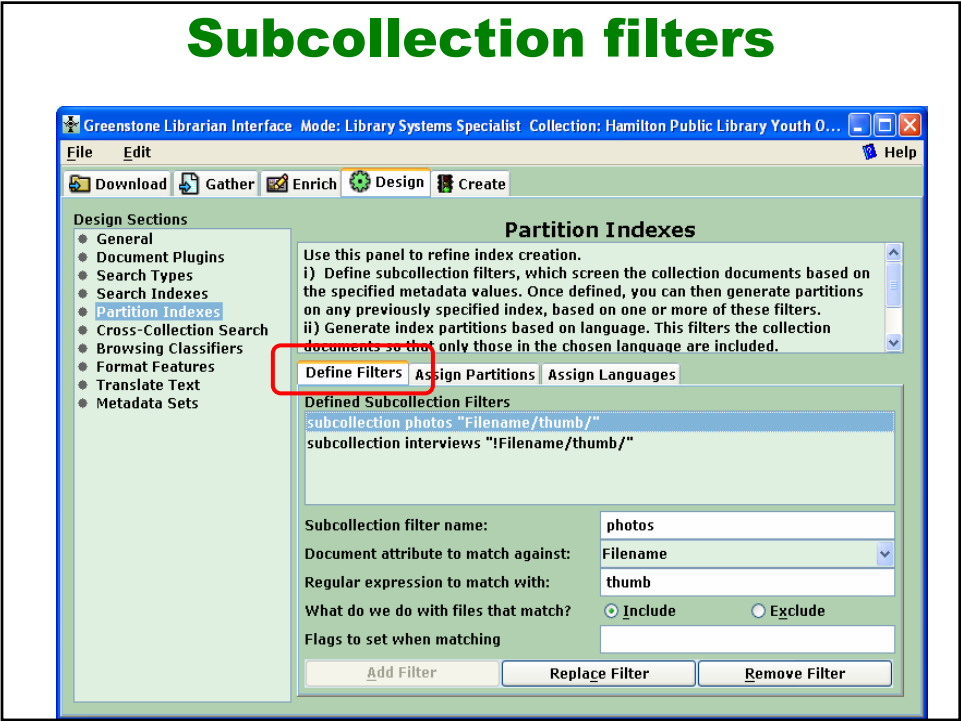
Collection documents



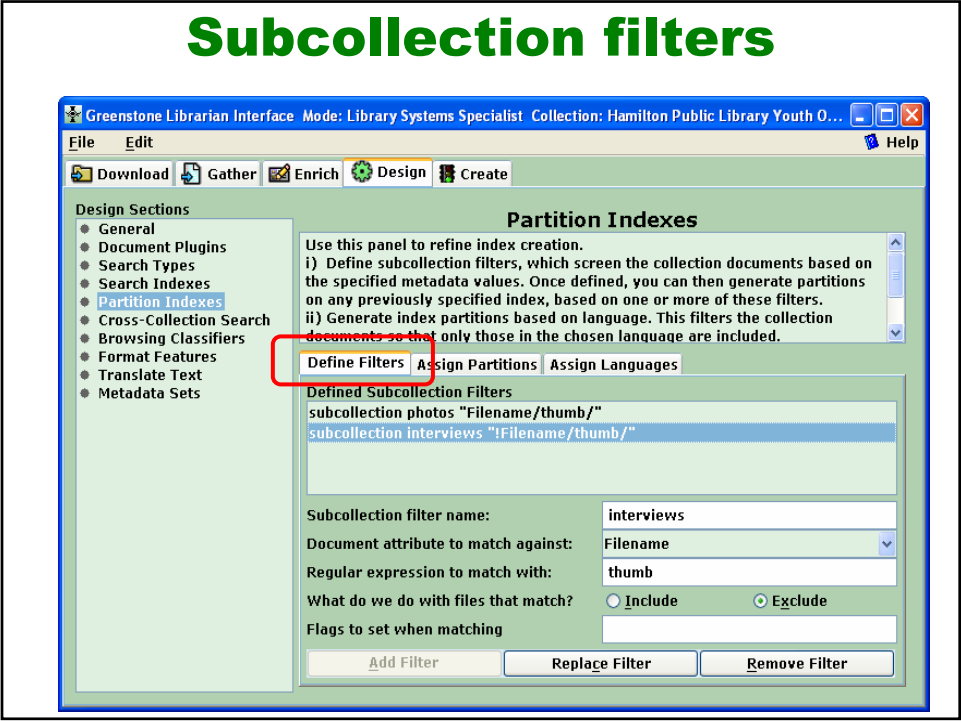
Collection documents



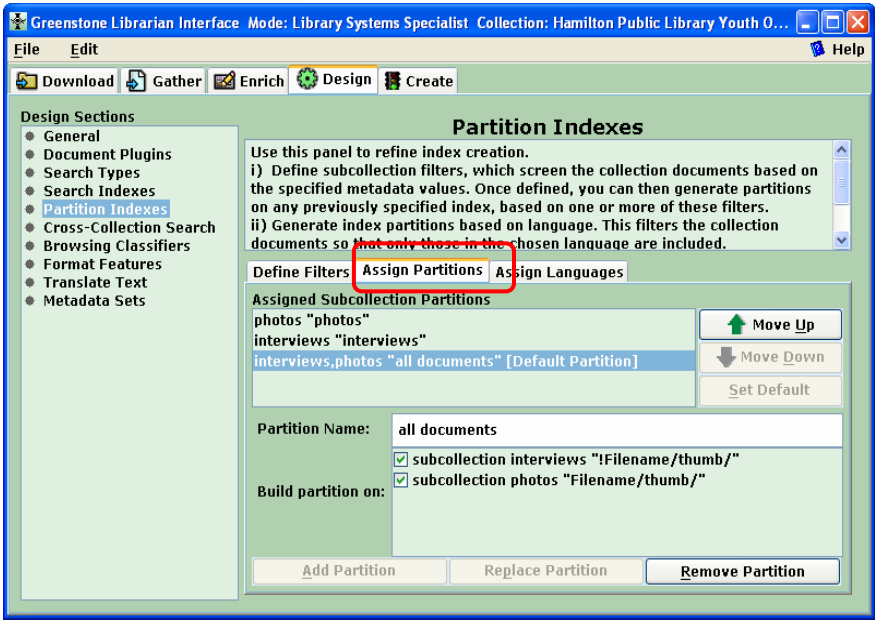
Subcollection filters



Subcollection filters

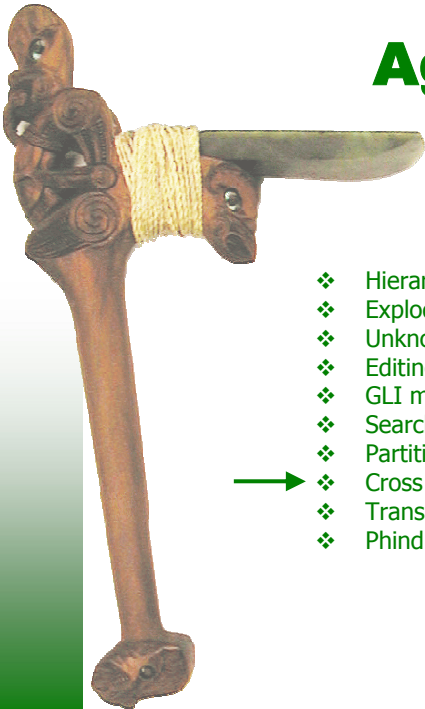


Assign partitions



Document type partitions





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Cross Collection Searching

- ❖ Select a list of collections
- ❖ Collections need the same indexes
- ❖ User can select which collections to search on Preferences page
- ❖ Format statements applied from original collection

Bibliography collections

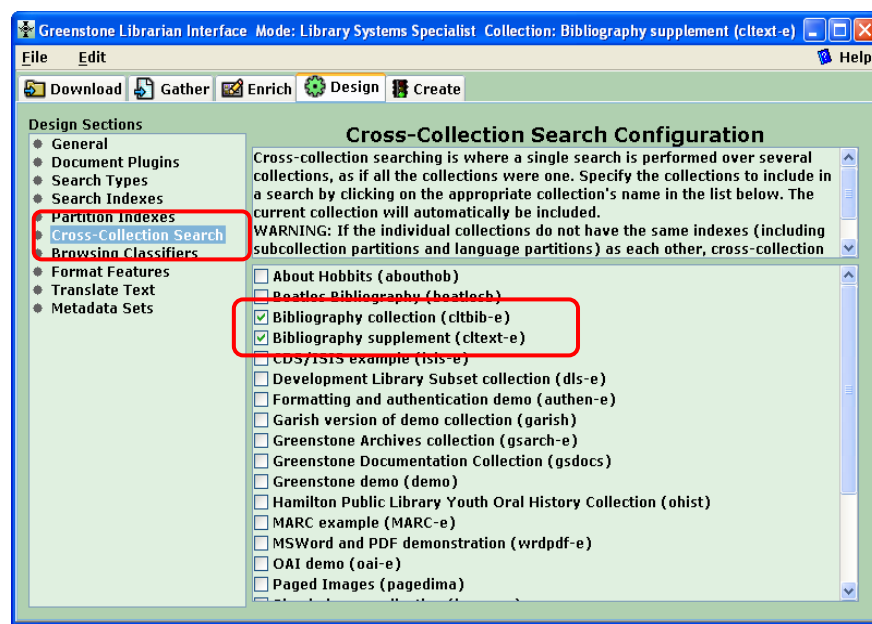
bibliography collection

With about 4,000 bibliography entries, this collection incorporates a form-based search interface that allows fielded searching. It is fairly complex.

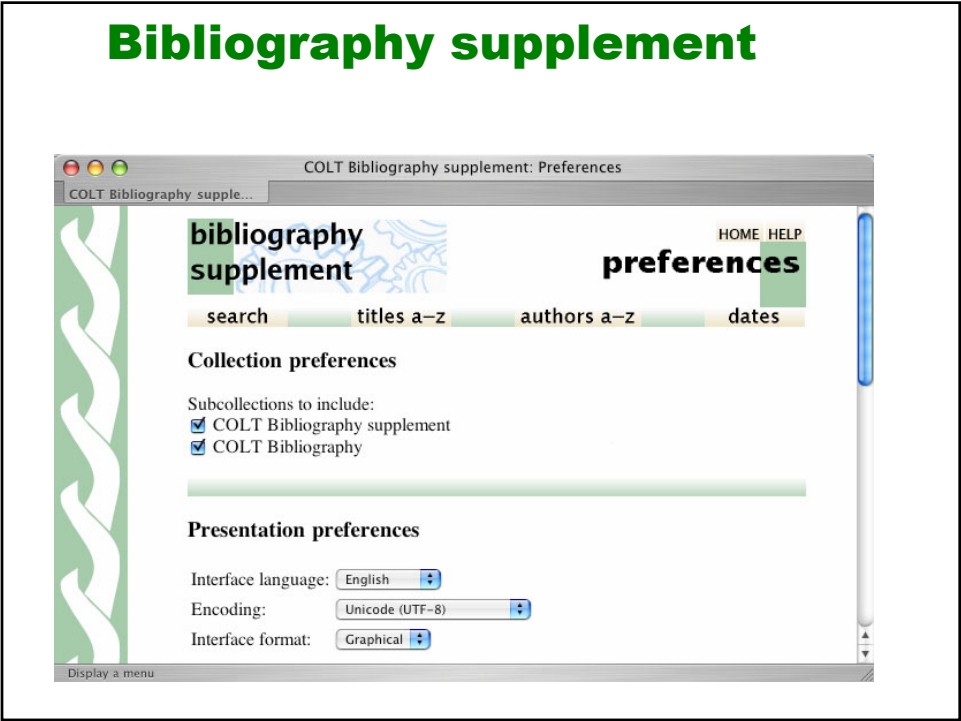
bibliography supplement

This tiny collection of 10 bibliography entries illustrates the "supercollection" facility which searches several collections together, seamlessly. It operates together with the [Bibliography collection](#), and its configuration file is almost the same.

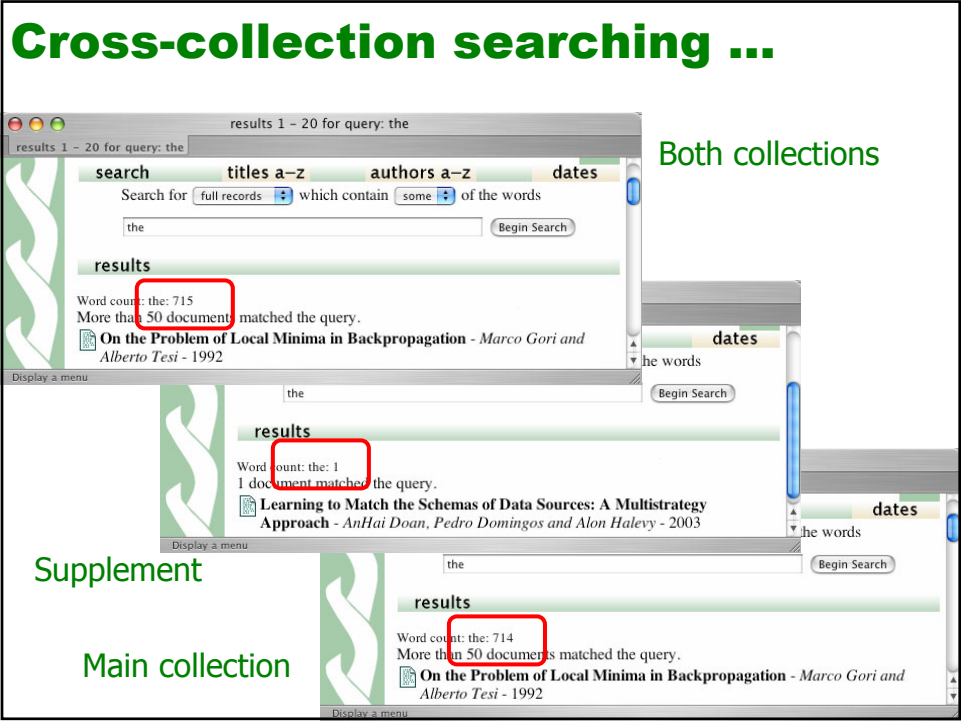
Cross collection search



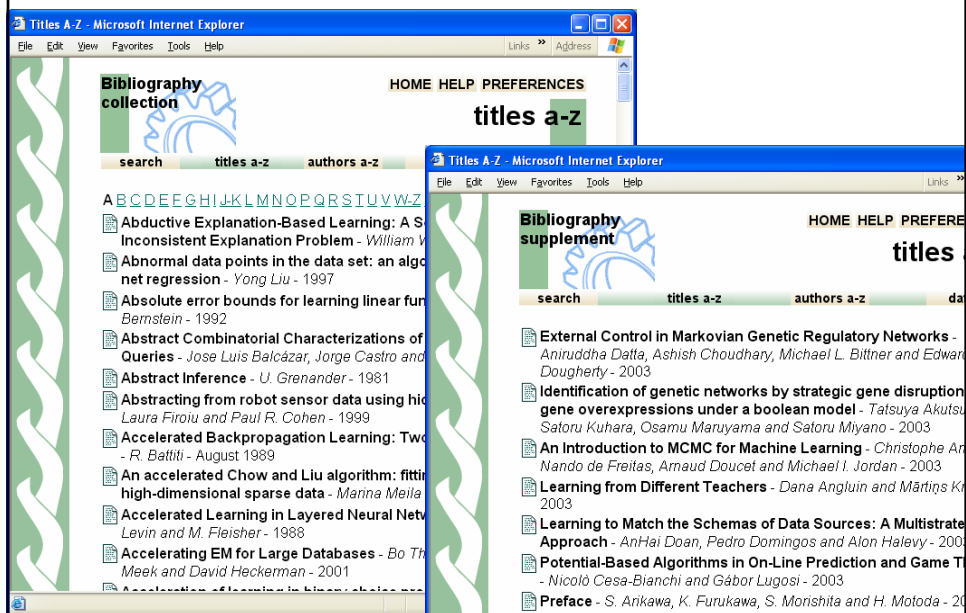
Bibliography supplement



Cross-collection searching ...



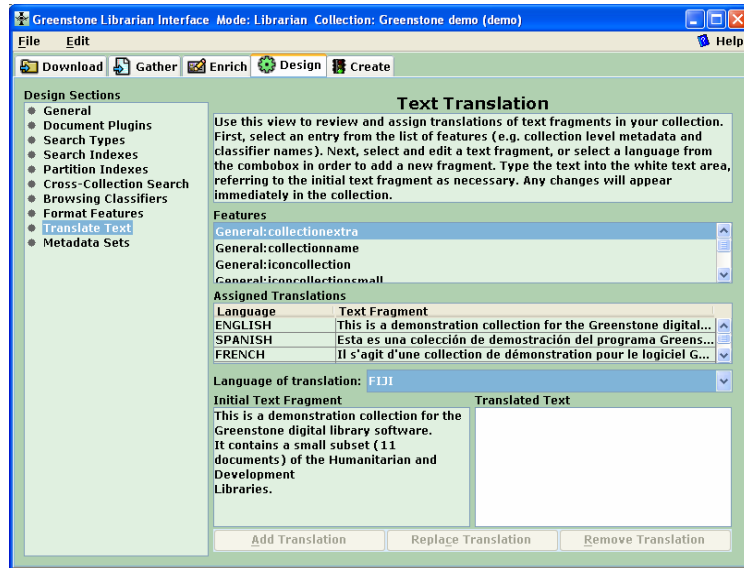
... but not browsing



Agenda

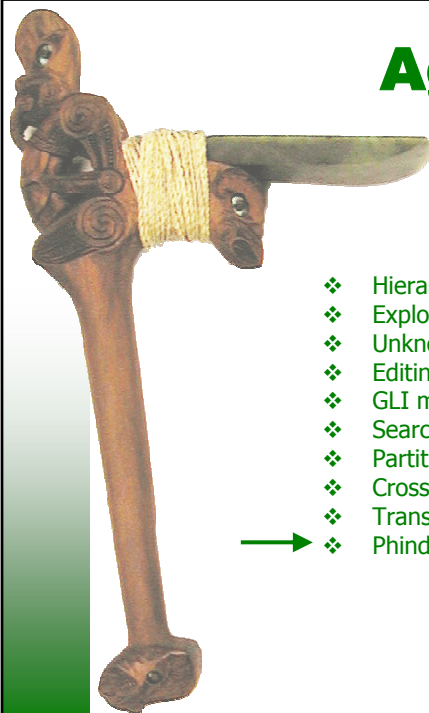
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Translate Text

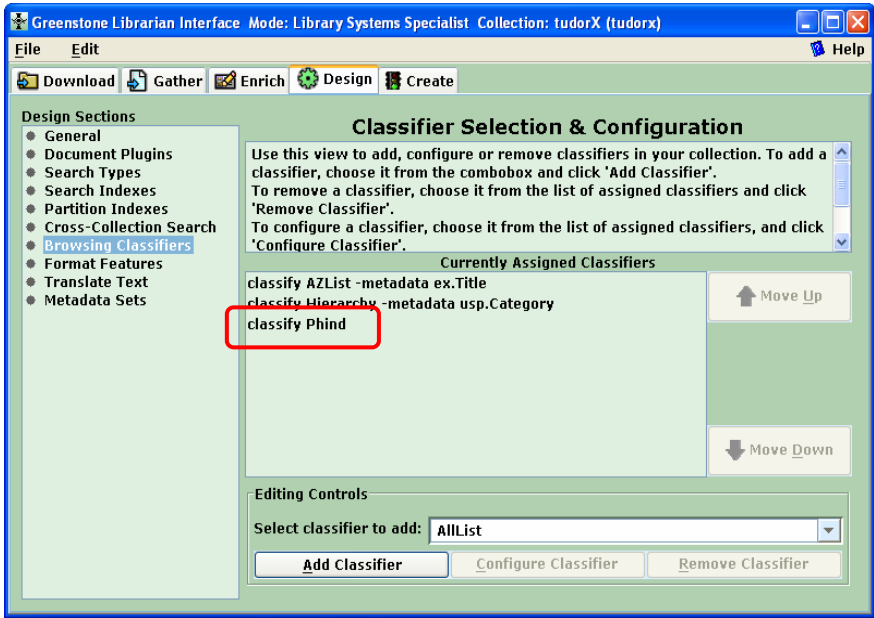


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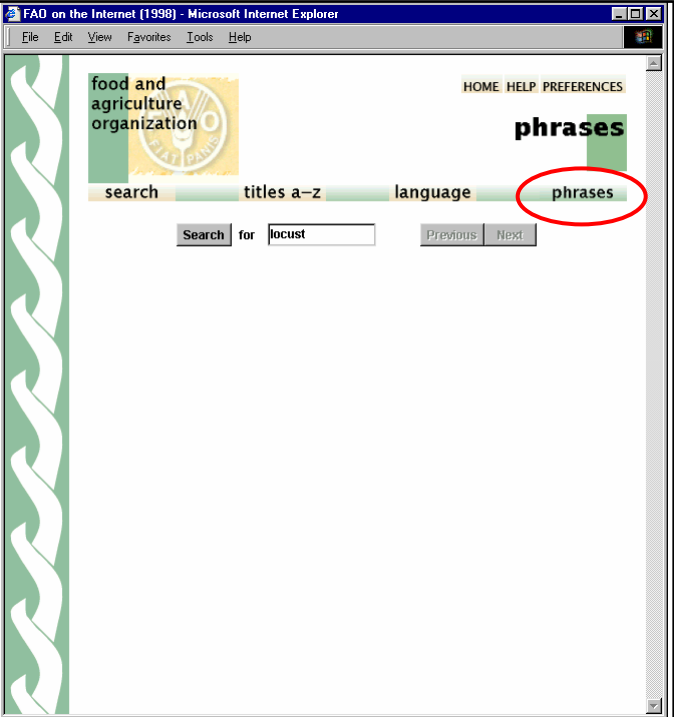
Phind Phrase Index

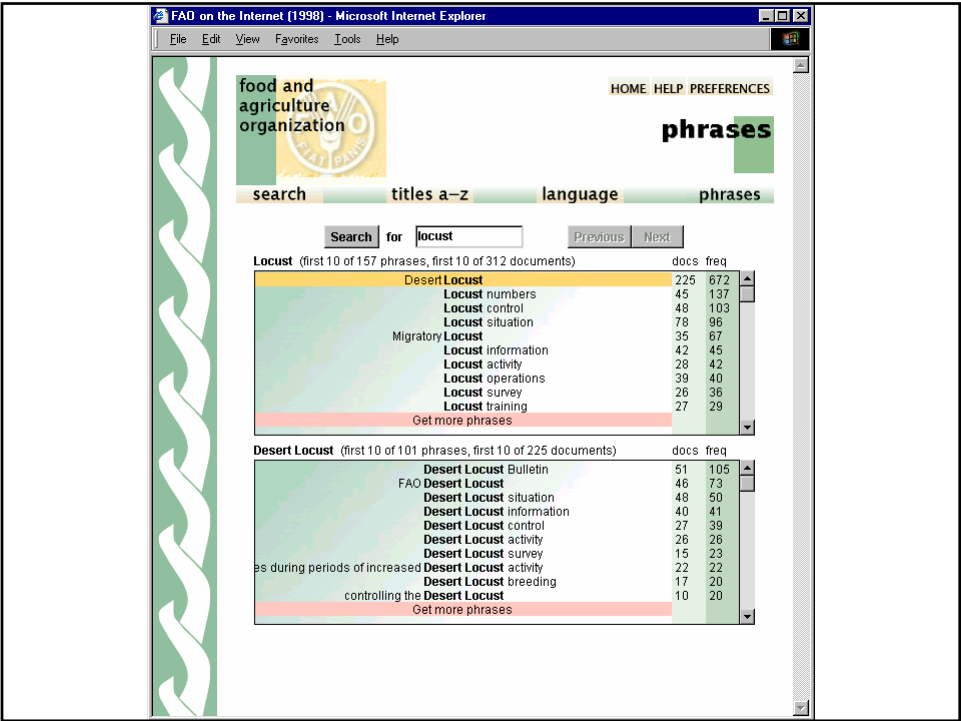
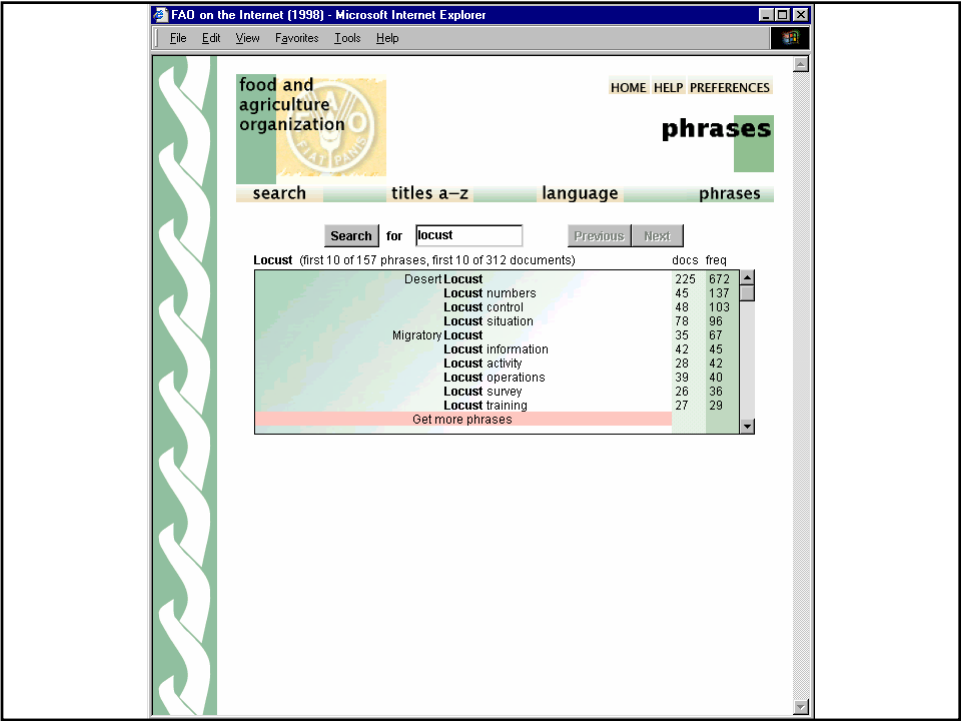


PHIND

Hierarchical index of phrases

- ❖ *What's in this collection?*
- ❖ *Is it any good?*
- ❖ *What coverage for topic X?*
- ❖ *My query returned too much/little, what now?*





FAO on the Internet (1998) - Microsoft Internet Explorer

File Edit View Favorites Tools Help

food and agriculture organization

HOME HELP PREFERENCES

phrases

search titles a-z language phrases

Search for Previous Next

Locust (first 10 of 157 phrases, first 10 of 312 documents)

	docs	freq
Desert Locust	225	672
Locust numbers	45	137
Locust control	48	103
Locust situation	78	96
Migratory Locust	35	67
Locust information	42	45
Locust activity	28	42
Locust operations	39	40
Locust survey	26	36
Locust training	27	29
Get more phrases		

Desert Locust (first 10 of 101 phrases, first 10 of 225 documents)

	docs	freq
Desert Locust breeding	17	20
controlling the Desert Locust	10	20
Get more phrases		
Desert Locust Information Service of FAO: Locust FAQs	37	
LOCUST CONTROL SITUATION: MEASURES TAKEN AND FURTHER ACTION	26	
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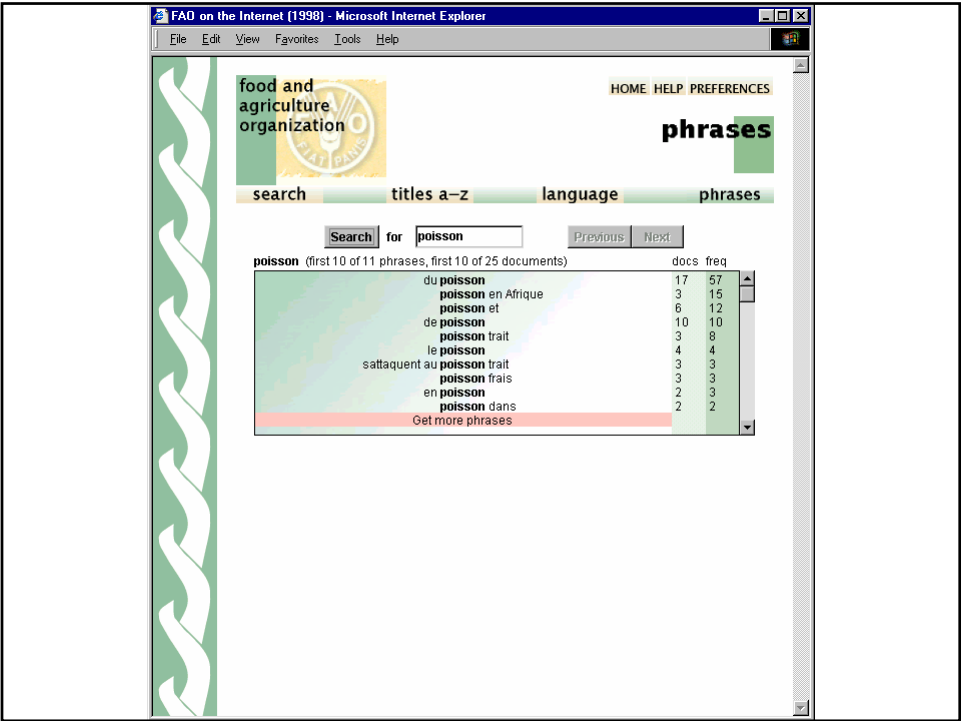
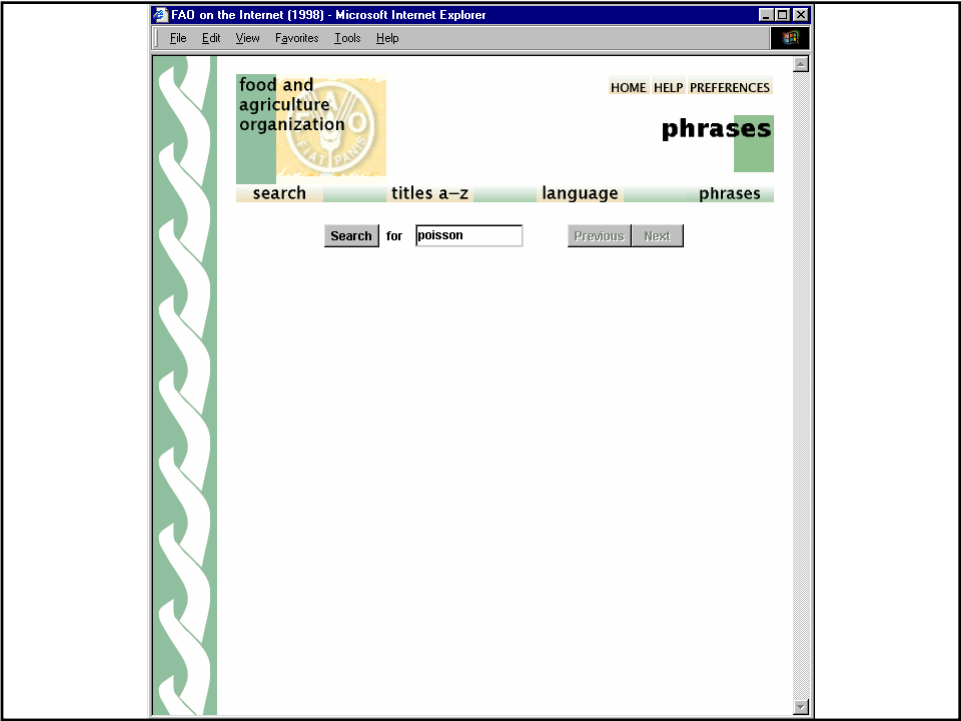
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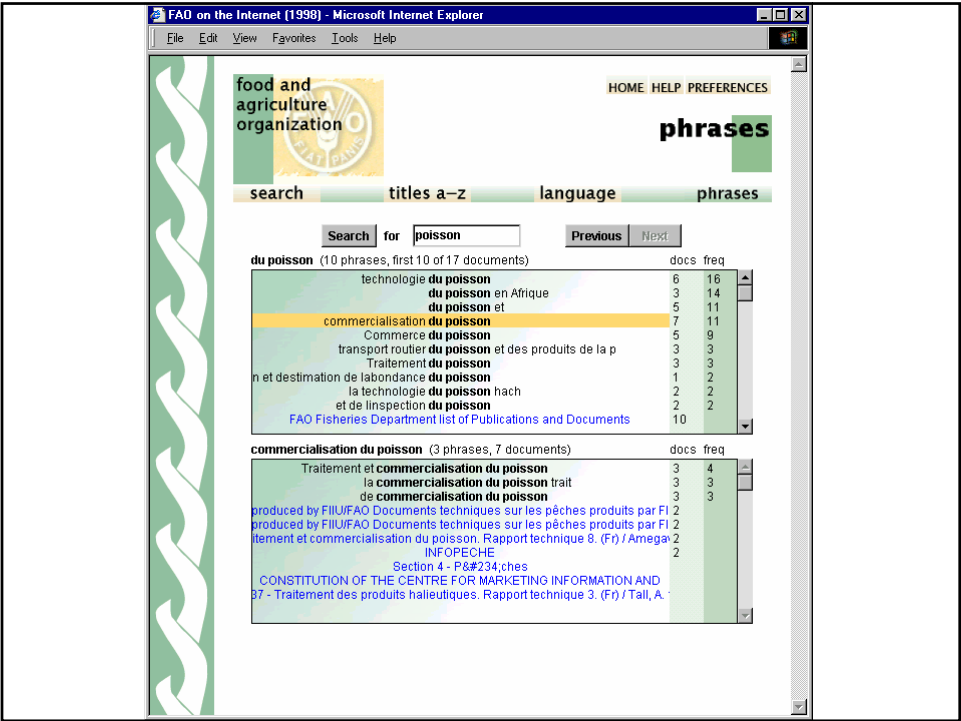
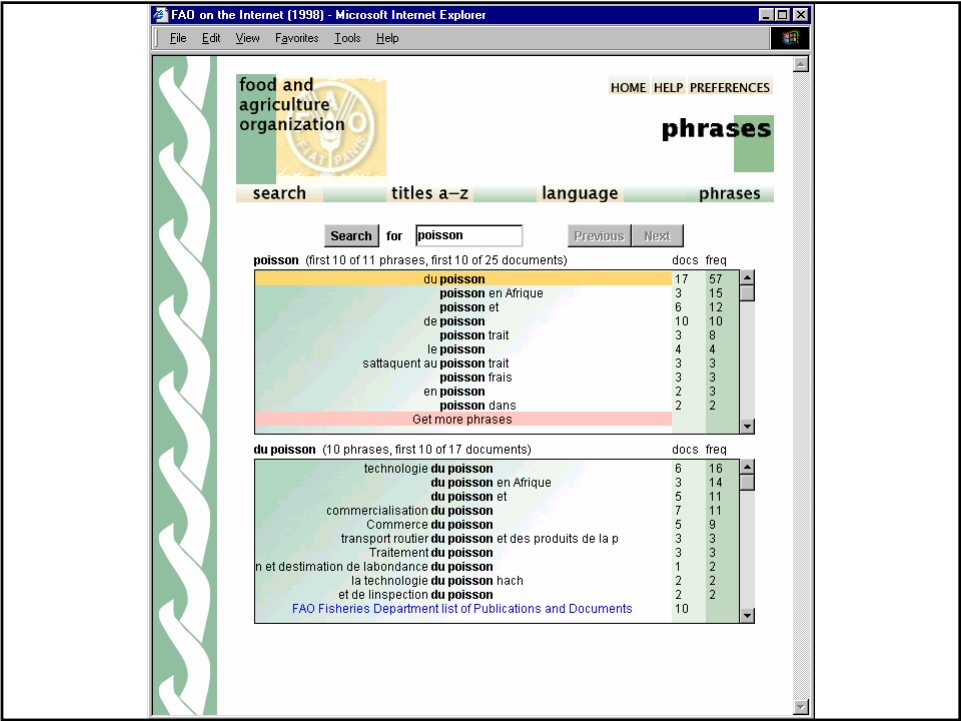
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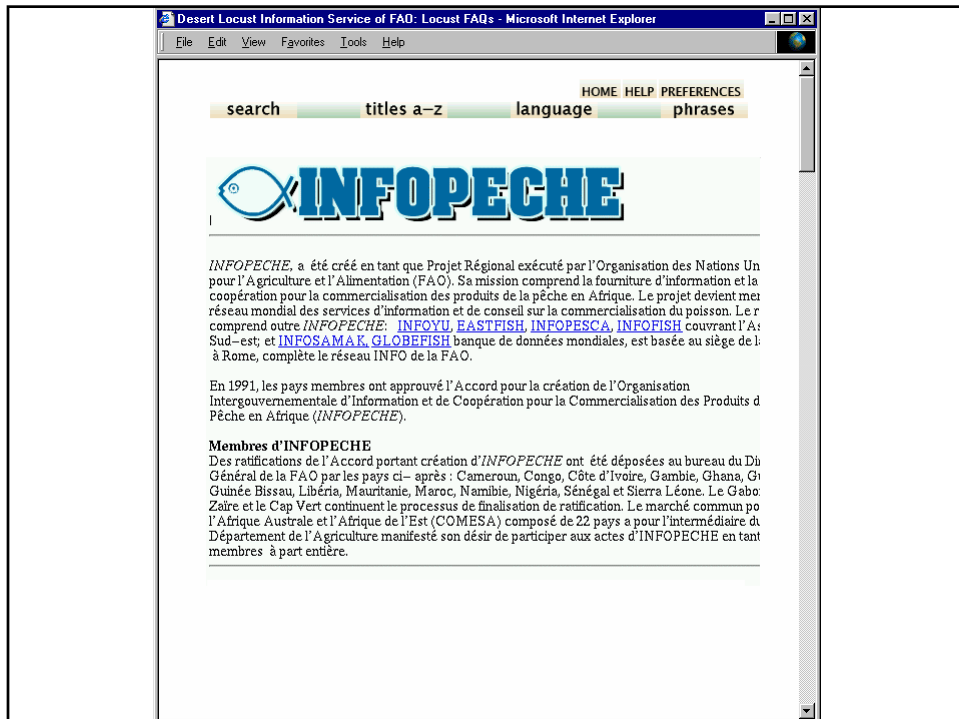
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Frequently Asked Questions (FAQs) about Desert Locusts

- [What is the difference between locusts and grasshoppers?](#)
- [What is a Desert Locust?](#)
- [What countries are affected by the Desert Locust?](#)
- [Do Desert Locust plagues occur with any regularity?](#)
- [How long does a Desert Locust live?](#)
- [How many eggs does a Desert Locust female produce?](#)
- [How far and how fast can Desert Locusts migrate?](#)
- [How big are swarms and how many locusts are there in a swarm?](#)
- [What percentage of the Desert Locust's exoskeleton is chitin?](#)
- [How much food can a Desert Locust eat?](#)
- [What is the relationship between locusts and ecology?](#)
- [Why do locusts change their behaviour?](#)
- [Are there other important species of locusts?](#)
- [Can locusts hurt humans?](#)
- [How can locusts be controlled?](#)
- [Who carries out locust control operations?](#)
- [Are there any non-chemical ways to kill locusts?](#)
- [Can locusts be detected by satellites?](#)
- [Why are Desert Locust so difficult to control?](#)
- [Do people really eat locusts?](#)
- [What is a Desert Locust composed of?](#)







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