

eNOSHA: A Free and Open source Learning Object Repository

Documentation

- **Configure**

Basic Configurations

\$dbhost:

Database host, usually 'localhost', or either an external database through the ip address of the host

\$dbuser:

Database accessing user, usually 'root'

\$dbpass:

Database access password for the above user

\$dbname:

Database name

\$webroot:

Directory root of the eNOSHA system, something like '/user/local/apache2/htdocs/enosha' in a UNIX system or 'C:/apache/htdocs/enosha' in a Windows system

\$weburl:

URL used to access the system, usually something like 'http://124.533.25.64/enosha'

\$language:

Set the language of the system interface by changing the tail of the language URL, directing to a specific language file directory.

\$smtp_server :

An internal or external mail server for outgoing and incoming mails, generated by the system.

\$site_mail :

An email address for the system to send mails, not required to be a authentic mail address.

\$same_ip_rating:

A configuration option for the rating module of the system, enabling rating from the same ip address repeatedly.

UNIX Users

Unix users uncomment the line in the config.php

```
$os = "unix"; $mysqldump = "mysqldump"; $zip_path = "/user/bin/zip";
```

If the **zip library** path or **mysqldump path** differs from these generic examples, change " ; \$mysqldump and \$zip_path accordingly

Windows Users

Windows users uncomment the line in the config.php

```
$os = "windows"; $mysqldump_path = "C:/mysql/bin/mysqldump.exe";
```

Change the zip library path accordingly.

- **Installation**



The screenshot shows the eNOSHA installation configuration form. At the top, it reads "E-LEARNING NEUTRAL OBJECT STORAGE WITH A HOLISTIC APPROACH" and features the eNOSHA logo. Below this, there are several input fields for configuration: Database Host, Database User, Database Pass, Database Name (with an example "(e.g: enosha)"), Webroot (with an example "(e.g. /var/www/html/enosha)"), and Web URL (with an example "(e.g: http://mysite/enosha)"). A "Proceed" button is located at the bottom right of the form.

When deploying eNOSHA for the first time,

Place the enosha directory in the webroot, create a 'enoshadata' directory outside the webroot.

Give 'enoshadata' write permissions. For 'enosha' directory, apache permissions.

(e.g, For Unix Users, "chown -R apache:apache /var/www/html/enosha")

Run <http://mysite/enosha/install.php>

It will install the database and prompt for the preliminary system and database configurations.

After the database installation is successful go to the root of the system and edit the config.php file.

NOTE: Some important configurations have to be done in the config file after the basics.

- **Comment the line according to the Operating System you are using**
- **Especially the upload path, which should be set to the newly created 'enoshadata' directory outside the webroot in a previous step.**
- **The paths to zip and mysqldump used for backing up the system.**
- **A smtp server address if you want email notification to be sent in the events of user registrations and validations. This will be mandatory for the event of requesting new passwords.**

Remove the install.php

Administration Module: Functionalities:

- **Add Categories / Subcategories**

This functionality adds/removes basic and sub categories that a learning object can belong to. Removing means making them obsolete, as the already existing objects for that category may become stranded if the category was permanently removed.

Add A Category	Current List <input type="text"/>	<input type="text"/>	+Add	-Remove
Add A Level 1 Subcategory	Select a category above <input type="text"/>	<input type="text"/>	+Add	-Remove
Add A Level 2 Subcategory	Select a category above <input type="text"/>	<input type="text"/>	+Add	-Remove
Add A Level 3 Subcategory	Select a category above <input type="text"/>	<input type="text"/>	+Add	-Remove
Add A Level 4 Subcategory	Select a category above <input type="text"/>	<input type="text"/>	+Add	-Remove
Add A Level 5 Subcategory	Select a category above <input type="text"/>	<input type="text"/>	+Add	-Remove

- **Set File types and formats**

This Functionality adds file formats and file format types (i.e. Flash files, Documents etc). For file extensions the removing operation is not implemented, as it is not necessary to remove them. For File format types it is applicable.

When new file extensions are in the system, the administrative user sees a notification of the event, and he can set those new extensions with a related file format type. (e.g. 'swf file' with 'Flash Files')

Obsolete File Format Types can be restored as well.

Add Extension	<input type="text"/>	+Add	Current List <input type="text"/>
Add Generic Type	<input type="text"/>	+Add	Current List <input type="text"/> -Remove
Set Uncategorized Extensions with File Types <input type="text"/> <input type="text"/> Set Type			

- **Add Languages**

This Functionality adds/removes Languages.

Language means the languages of the learning objects.

Obsolete languages can be restored as well.

Add a Language	<input type="text"/>	+Add	Current List <input type="text"/>	-Remove
			Obsolete List <input type="text"/>	+Activate

- **Add Activity Types**

This Functionality adds/removes Activity Types.

Activity Type means the behavior of the learning objects, as to how they can be used.

Obsolete Activity Types can be restored as well.

Add an Activity Type	<input type="text"/>	<input type="button" value="+Add"/>	Current List	<input type="text" value=""/>	<input type="button" value="-Remove"/>
			Obsolete List	<input type="text" value=""/>	<input type="button" value="+Activate"/>

- **Add Target Regions**

This Functionality adds/removes Target regions.

Target region means the target audience for the learning object

Obsolete Target Regions can be restored as well

Add a Target Region	<input type="text"/>	<input type="button" value="+Add"/>	Current List	<input type="text" value=""/>	<input type="button" value="-Remove"/>
			Obsolete List	<input type="text" value=""/>	<input type="button" value="+Activate"/>

- **System Backup**

This Functionality creates complete backup of the current system, both data and database.

These backups are stored in a directory named 'backups' in the enosha webroot. (i.e. enosha/backups)

The backup files will be in the format

2009.07.14.01.40.data_backup.zip (data backup)

2009.07.14.01.40.sql_backup.sql (mysql dump)

Take a Full Backup of the database and the data: The data will be saved in enosha/backups	
	<input type="button" value="Backup Data"/>

User Management Module: Functionalities:

- **Add A User**

This Functionality adds users to the system. This functionality can be accessed by a super admin user.
(Certain normal users may get the administration panel, but that is only for system customization)

- **Check for Users**

This Functionality is a search utility for admin user when adding users. This is just to check if the user is added to the system or not.

- **User Search [Advanced]**

A more detailed search functionality.

Name	Username	email	User Type	Change User Type	Status	
Test User	test	test@test.com	Administrator	<input type="text"/> <input type="button" value="Go"/>	Active	<input type="button" value="Ban"/>

- **User Ban/Activate**

An on-the-fly User ban/activate utility for admin user

- **Change User Type**

An on-the-fly User type upgrade/downgrade utility for admin user

- **Add User Types**

This Functionality adds/removes User types to the system.
A User Type means a different role.

- **Set User Rights**

When a new user type is added to the system or existing user type privileges need to be upgraded, this functionality can add/remove user actions for user types.

- **User Validation**

When New Users register in the system, the admin user gets a notification about the number of users waiting to be validated. The to-be validated users are listed and the administrator can either validate them by assigning them a user type or completely remove them from the system.

Perform A Task

There Are 1 Users Awaiting Validation

Validate New Registrations					
Name	Username	email	Assign A Role		
Test User	test	test@test.com	<input type="text" value=""/> <ul style="list-style-type: none"> Instructional Designer Content Developer Normal User Administrator 	Validate	Delete

Upload Module: Functionalities:

- Normal Upload:

Choose A Template Normal Upload Create A Template

Upload A File

Title

New File Modified File

Aggregation Level

File

Fill the details given below [Mandatory]

Category

The basic upload feature, requiring the user to input all the metadata and upload the learning object.

NOTE: 'Modified File' is used to track the source file of the object the user is about to upload. (Not to be confused with 'Modifiable?' which speaks of whether the uploading object is modifiable or not)

Home | Upload | Search

Home ▶ Upload

Choose A Template Normal Upload

Upload A File

Locate Original File

Search: From: Select

After the search has been done for the source, the results will be displayed so the user can select the originating file.

Locate Original File

More Search: Select

[Back](#)

This is the method used for version handling on files in eNOSHA.

Title	Description	Format	CatalogName	Author	Selection
A Java Example	A java example with Inheritance.	.docx	BIT	Isuru Balasooriya	Select

- **Template based upload:**

Users can create upload templates with pre-defined values for a batch upload. (e.g. A single course unit where the learning objects will have the same category and metadata similarities)

Create A Template

Template Name

New File Modified File

Aggregation Level ?

Fill the details given below [Mandatory]

Category

After creating these upload-templates, users can select the desired template and upload learning objects.

Upload A File

Choose A Template [Create A Template](#)

Normal Upload
 Course 101
 Course 201

After selecting the template, the pre-defined set of metadata will appear on the upload screen and the user will only be prompted to input the distinct metadata values as the title, keywords etc.

Upload A File ...Or Bulk Upload?

Title

Keywords (Comma Seperated)

File

Description

Auto Filled Values By Template

Aggregation Level ?

Category BIT

Change

Language

Modifiable? ? Yes No

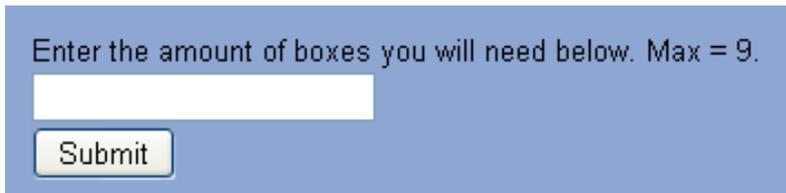
Audience ? Internal External

Copyright Checked ? Yes No

Author ?

Activity Type

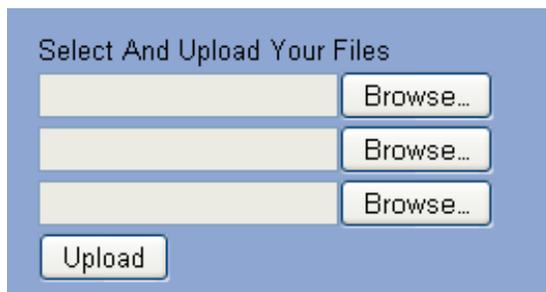
- **Bulk Upload:**



Enter the amount of boxes you will need below. Max = 9.

eNOSHA will ask the user how many simultaneous file uploads will be required, as an attempt to make it more flexible.

And according to the need, the upload screen will appear.



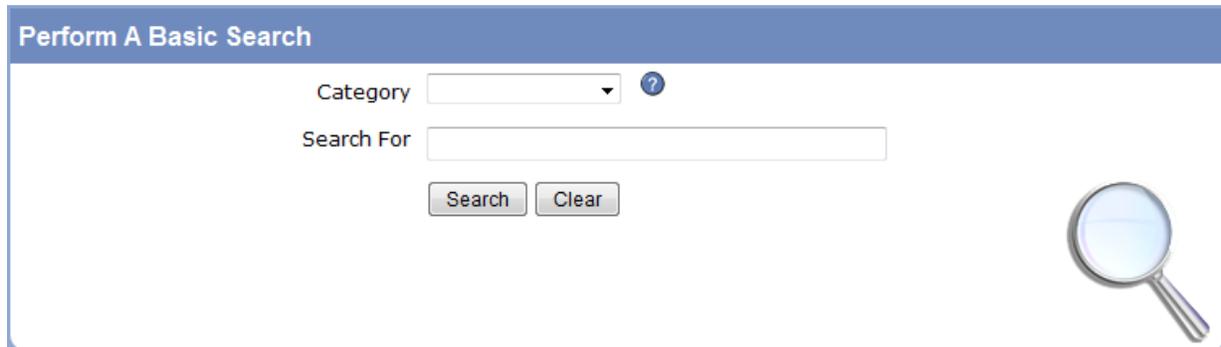
Select And Upload Your Files

After the files have been uploaded to the server, the metadata filling will resume. As the user-template has already been chosen for this bulk upload, the pre-defined values will be automatically loaded and the few remaining metadata will be prompted to fill in.

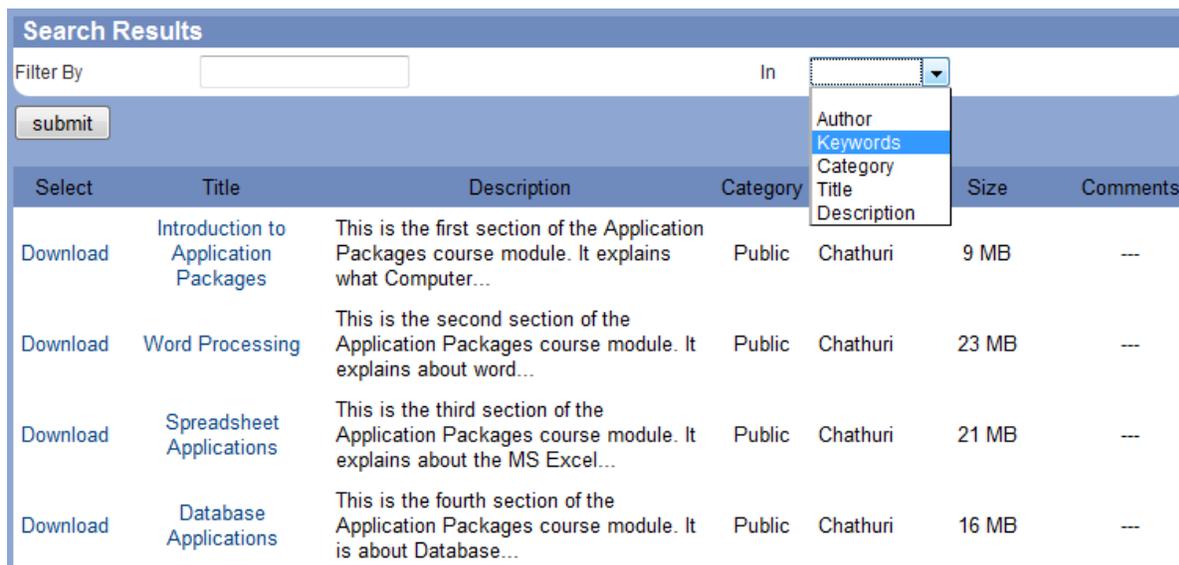
Search Module: Functionalities:

- **Simple Search**

The basic search utility available, focusing on the main category-wise search or a free text search.



Search results are presented tabularly, with only the preliminary metadata, and the titles are 'clickable' to those who want to know more about the learning object. A direct download link is also present.



Select	Title	Description	Category	Size	Comments
Download	Introduction to Application Packages	This is the first section of the Application Packages course module. It explains what Computer...	Public	9 MB	---
Download	Word Processing	This is the second section of the Application Packages course module. It explains about word...	Public	23 MB	---
Download	Spreadsheet Applications	This is the third section of the Application Packages course module. It explains about the MS Excel...	Public	21 MB	---
Download	Database Applications	This is the fourth section of the Application Packages course module. It is about Database...	Public	16 MB	---

- **A filtering mechanism**

for filtering through a large number of results set, to pinpoint to the exact learning object the user might be looking for.

The criteria for the filtering are, *Author, keywords, category, title* and *description*.

The individual details page for each object looks like this. All the metadata assigned to it are displayed.

- **Tag cloud**

The most searched keywords of the system, made into searchable tags.

Tag Cloud

java patterns warning dreamweaver tools cascading techniques executable code open source layers flash output explain appropriate picture about features effects elephants grass snapshot layer macromedia page principles designing css text design line transformation graphics gradients generate drawing sheets style web pic ocean waves exam movie vlc ajax elephant lion thusith

- **Editing metadata**

Only for an administrator or the uploader, the facility to update the metadata is available. (As well as the deletion of the learning object)

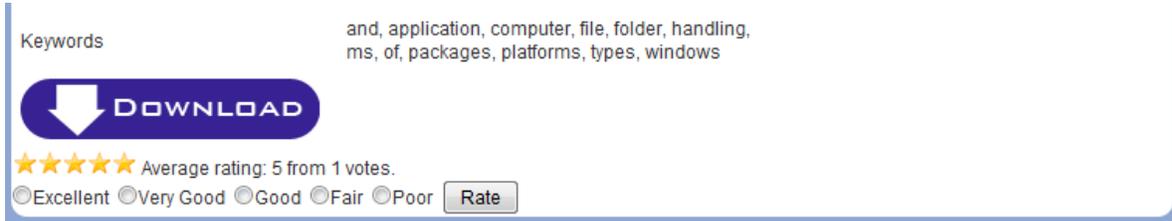
Learning Object Details Edit/Delete

Title	Introduction to Application Packages	Modified Versions
Categorized Under	Public >> Application Packages >> Introduction to Application Packages	None
Description	This is the first section of the Application Packages course module. It explains what Computer Application Packages, identify different types of Application Packages built for different platforms, common folder and file handling techniques in MS Windows environment	
Language	English	
Aggregation Level	Course Module	

Learning Object Details		
Title	Introduction to Applicati	Modified Versions
Categorized Under	Public >> Application Packages >> Introduction to Application Packages	None
Description	Change <input style="width: 100%;" type="text" value="This is the first section of the Application Packages course module. It explains what"/>	
Language	English	
Aggregation Level	Course Module	

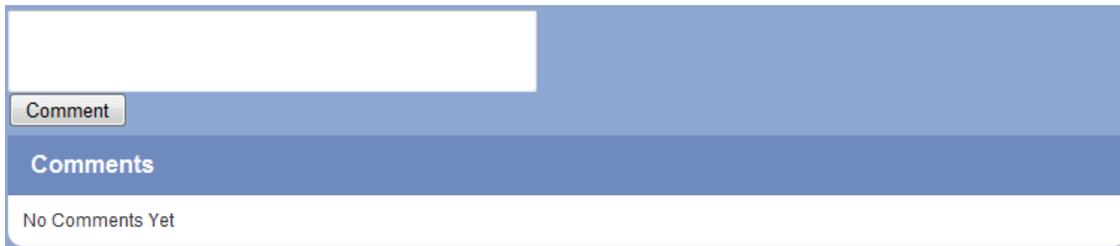
- **A rating module**

With or without the same ip rating privilege configured in the config file.



- **Commenting module.**

NOTE: For an administrator or the commentor, the right to remove the comment is granted.



- **Versioning:**

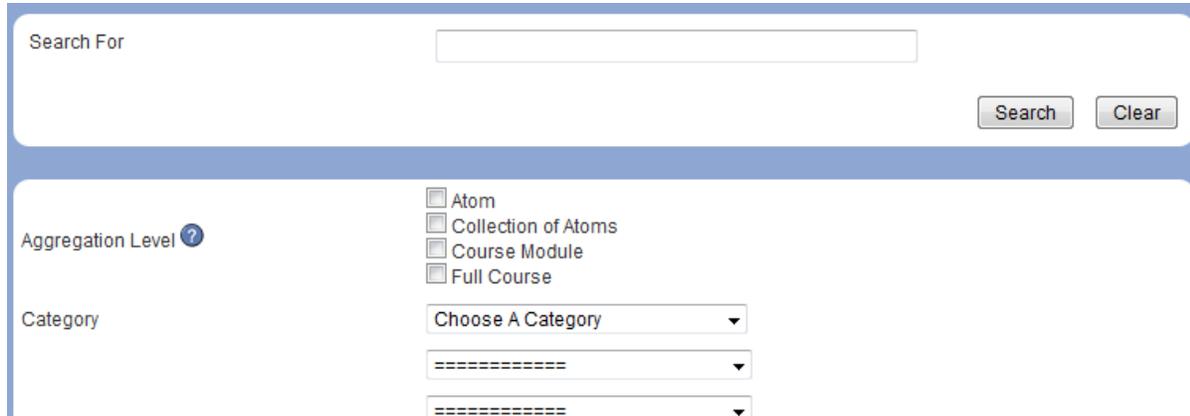
If a certain learning object was created using a previous one, then in the individual page for the object, the previous versions, related versions and the further modified versions are listed.



NOTE: 'Related' means they originated from the same source file.

- **Advanced Search**

Located at the bottom of the simple search interface, advanced search enables more specific metadata searchability, especially when the user knows what to search for.



The screenshot shows a search interface with a blue header. At the top, there is a search bar labeled "Search For" with a text input field and "Search" and "Clear" buttons. Below the search bar, there are filter options. On the left, there is a section for "Aggregation Level" with a help icon and a "Category" label. On the right, there are four checkboxes: "Atom", "Collection of Atoms", "Course Module", and "Full Course". Below these are three dropdown menus: the first is labeled "Choose A Category", and the other two are represented by dashed lines.

List of metadata supported by the advanced search:

- Aggregation Level
- Category
- Format
- Format Type
- Size
- Language
- Modifiable
- Audience
- Date
- Published status
- Author
- Copyright Checked
- Copyrights and Other Restrictions

Statistics Module: Functionalities:

- Year-wise and month-wise statistics



Show Statistics For 2009 MM Show

- Category-wise representation of system data

Selected information will be presented in the statistics page, concerning the different modules of the system.

Statistics For 2009-0		
Download Statistics	Upload Statistics	Search Statistics
Top Downloaded Files: Electronic Presentations Introduction to Application Packages Word Processing Programming Database Applications	Most Uploaded Category: Public BIT	Top Search Mode: Simple Search
Top Downloaders: Isuru Balasooriya: 4 Downloads Thilini Chathurika: 1 Downloads	Top Uploader: Enosha Hettiarachchi: 9 Files	Most Searched Category: BIT Public FIT
Top Downloaded Category: Public BIT	Top Uploaded Content Type: Compressed Images	Top Searcher: Isuru Balasooriya Mathias Thilini Chathurika Mozelius
	Uploads By User Type: Instructional Designer: 9	Top Searched Content Type: Flash Files

Help Module: Functionalities:

- Glossary

A list of system terminology for the users. The glossary can be searched, edited and can be added with new terms.

NOTE: The Editing right has to be assigned with a user role, before editing or adding to the glossary.

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V
W | X | Y | Z

Search For

Title	Description
Atom	The smallest level of aggregation, like Images, Text files, Sound files and Animations.
Aggregation level	The level of combination of learning objects. Atom: The smallest level of aggregation, like Images, Text files, Sound files and Animations. Collection of atoms: A combination of atoms, like a HTML document with embedded pictures or a lesson. Course module: A complete course section that include a selection of collection of atoms. Full course: A full course that include all the course modules for the specific course.
Activity type	The learning activity included in the material, like self assessments or tutorials.
Audience	If the material is used only within the organization (Internal) or if it is publically accessible (External).
Author	The person that created the resource.

Title

Description



Learning Flexible User-Friendly
Collaborate Open Source Free
Repository Storage Reusability

For more information on the system and help, please email

irb@ucsc.cmb.ac.lk (Isuru Balasooriya) , enoshalw@gmail.com (Enosha Hettiarachchi) ,
mozelius@dsv.su.se (Peter Mozelius), mathias.hatakka@oru.se (Mathias Hatakka),
kphewa@gmail.com (Dr. K.P. Hewagamage)

Or you can refer the eNOSHA Video tutorial for more practical experience.

eNOSHA has been a collaboration between The University of Colombo School of Computing, The Stockholm University and the Swedish Business School of Örebro University, Sweden.

The Team

- Isuru Balasooriya
- Enosha Hettiarachchi
- Thilini Chathurika
- Sirani Hewage
- Mathias Hatakka
- Peter Mozelius
- Dr. K.P. Hewagamage
- Dr. D.D. Karunaratne

Learning Flexible User-Friendly
Collaborate Open Source Free
Repository Storage Reusability