MODs:

MODs are being developed for the conversion of the current phpBB open source discussion board (phpBB V 2.0.6) to the academic version of the open source course discussion board for DEN.

Following is the tentative list of the MODs, which would be keep changing as per the MOD requirements and new features are added or extracted from the current production system for ISI Discussion Board:

(1) Login
(2) Logout
(3) Frame view (frameset)
(4) Course view
(5) Archived Courses
(6) Forum view
(7) Topic view
(8) Posting
(9) Notification Preferences
   - IM Notification
   - Summary Notification
(10) Account Preferences
(11) Discussion Search
(12) Document Search
(13) Bread crumbs
(14) Admin MODs
   - Statistics
   - Archived Discussions
   - Archive Students
   - Add users
(15) RSS Feed Display
(16) RSS Generator (logger)
(17) LHS panel UI
(18) Virtual Tutoring (Donghui)
(19) Template
(20) Functions (Not sure)
(21) Cookie Settings
(22) Session Management*
   (currently dispersed into all the MODs)
(23) DEN
Thus, in total, there would be around 28 MODs being developed. These MODs can further be modularized using the features each MOD possesses. Please find further modularization into the MOD descriptions.

**Dependency Analysis:**

**Dependent Vs Independent MODs:**

**Dependent MODs:**

All the MODs which are either general MODs (MODs in which general changes are recorded) are Dependent MODs. The installation of these MODs must be done through the pipeline described in the installation instructions, which will make the current system up and running at the first step. Independent MODs can be attached or detached as per user requirements, after dependent MODs are installed.

Dependent MODs from the current system are as follows:

1. Login
2. Logout
3. Frame view
4. Course view
5. Forum view
6. Topic view
7. Posting
8. Discussion Search
9. Bread crumbs
10. Admin MODs (May be independent, if not provided in the core requirements)
11. Template
12. Functions
13. Session Management
14. DEN (Independent MOD, if only external login need to be used)

All other MODs are independent MODs.

[Figure 1.1 MODs Dependency Diagram]
Installation Instructions:

MODs needs to be installed in the predefined pipeline, which will enable you advance through step by step process, which can visually show up on the discussion board. Though with some errors, such as some of the links might not work because the very next MOD needed for the dependency to make the links or web pages work.

Though some of the MODs currently involve the template changes, the template will be provided as a directory for the installation. If required, new Template MOD having changes from all the templates would be made just for the reference material or to record changes made in the templates.

Please follow the instructions below to start installation of the MODs being developed:

Pre-Installation Procedure:

- Install phpBB version 2.0.6.
- Install the Template (LORDEN_TEMPLATE) MOD
- Go to administration panel.
- Go to styles admin.
- Add a template denTest1 (Install a template)
- Change the default template, from subSilver to denTest1
- Close the administration panel

MODs Installation:

To view step by step advances (visually), please follow the installation of the MODs listed below chronologically.

All these changes, together may be viewed as a MOD (Academic MOD), which will change the current phpBB open source discussion board to its academic version.

(1) DEN (If login from DEN is required)
(2) Login
(3) Frameset
(4) LHS Panel_UI
    (currently incorporated in to the Frameset, can be provided into the Independent MOD named LHS Panel_UI)
(5) Course view
(6) Forum view
(7) Topic View
(8) Posting
(9) Bread Crums
   (currently all the changes are incorporated into the Course View MOD, which can be separated as a MOD named Bread Crums)
(10) Discussions Search
(11) Functions
(12) Admin MODs
(13) Session Management (If extracted from the current MODs)

Further Modularization or Extraction of the Features:

Current MODs can further be modularized as narrated below in the description:

(1) Login

   This has following features, which can further be modularized:
   - Checking of Cookie settings
   - Display message, to login through DEN first, if user have not been entered at least once from DEN (OR firstname, lastname or email are missing for the user entry)
   - Follow the frameset MOD instead of Category view (Course view for our system), to divide the system into the frame view.
   - Forward the session variable (Session ID), to the frame view MOD; to forward session further.

(2) Frame view (frameset)
   - Take session variable and extracts the user details
   - Display LHS Panel UI (can be separated into a new MOD)
   - Pastes the view course MOD in the RHS panel
   - Forward session to phpBB, for course view

(3) Course view
   - Session management
   - Guest user access is blocked (In case of any undesirable circumstances, user would get anonymous or guest access)
   - Redirect to Login page, if not logged in yet
   - View Archive courses (Can be separated as a Archived Course view MOD – MOD no 5)
   - View Bread crumbs (Can be separated as a MOD – Bread Crums)

(4) Archived Courses
- Incorporated currently into Course view
- Can be set as a new independent MOD

(5) Forum view

- Lastname to be displayed with the topics list, instead of username
  (Can be a small but separated MOD)

- Forwarding sessions through all URLs
- Document annotation
- Document view

(6) Topic view (Posts)

- Lastname to be displayed with the posts in the current topic, instead of username
  (Attach this changes to the separated MOD described just above)

- Changes with the posts, such as Subject, post options are displayed
- Display of the Attached URL
  (Can be separated as a Attachment Display MOD. Currently in the Topic view MOD)
- Forwarding sessions through all URLs

(7) Posting

- Post options (Modification, addition, ..)
- Attachment URL with the new topics
  (Can be separated as a MOD. Currently in the POSTING MOD)
- User notifications while posting
  (In this MOD or IM notifications. Currently can be replicated in both MODs)
- Socket programming (for the notifications)
- The feature for Preview of message before posting, is removed
- Forwarding sessions through all URLs

(8) Notification Preferences

a. IM Notification*
b. Summary Notification*

- Independent MODs
- Can be further separated in to two MODs
- Both are developed in Java using (J2SE and J2EE - Java beans). Thus, they can’t be phpBB default MODs.
- MOD can be made as an installation and integration instructions with the current production system.
(9) Logout
   - Add a file for logout, not in phpBB

(10) Account Preferences
   - Independent MOD
   - MOD has been made as a changes and installation instructions with the current production system.

(11) Discussion Search
   - Changes in the current system, general MOD
   - Haven’t finished yet fully
   - Forwarding session

(12) Document Search*
   - Independent MOD of phpBB
   - Changes are recorded as a new file installation of docSearch.php
   - Need Mihir’s view for the JSP changes

(13) Bread crums
   - Independent MOD
   - Currently this feature is incorporated into the View Courses MOD (File: page_header.php)

(14) Admin MODs
   - Statistics
   - Archived Discussions
   - Archive Students
   - Add users

(15) RSS Feed Display
   - Made and asked Mihir for review for the assessment of the MOD

(16) RSS Generator (logger)
   - Made and asked Mihir for review for the assessment of the MOD
(17) LHS panel UI

- Waiting for Mihir to finish and pass a MOD to me

(18) Virtual Tutoring (Donghui)*

- Record changes. Donghui will meet me in this week, for the deployment of his system on Melodic.

(19) Template

- denTest1 template for the installation

(20) Functions (Not sure)*

- I am not sure, how I can incorporate changes of the general functions.
- Looking into the code and checking how I can incorporate the changes.
- In existing MODs or as a separate MOD?

(21) Cookie Settings

- Can be developed as an independent MOD for phpBB
- Currently incorporated with comments in LOGIN MOD.

(22) Session Management*

(Generally dispersed through all the MODs)

(23) DEN*

Note:

- MODs with (*) need to be developed either partially or in entirety.

- I do have very limited knowledge for Puppet being used in our system, please elaborate. Not sure, currently being used or not.