

Tiki – Forum revamp - Feature enhancements

Summary

As part of a general Tiki Forum revamp it was agreed to make some functional improvements to the way forums are currently set up. In particular, these three main enhancements should offer a good effort/benefit ratio:

1. Ability to create sub-forums (forums within forums)
<https://dev.tiki.org/item7187-Create-a-forum-within-a-forum-sub-forum>
2. Ability to sort forums arbitrarily
<https://dev.tiki.org/item7186-Sort-forums-arbitrarily>
3. Ability to sort, edit and delete forum sections
<https://dev.tiki.org/item7188-Ability-to-sort-edit-and-delete-Forum-Sections>

Established approach

A few well-established forum software packages have a simple relationship between forums, sub-forums and forum sections:

instead of using separate entities (e.g. different SQL fields or tables), they use the same entity (e.g. same field) for forum, sub-forum and section. The difference between them is set by using one or more extra fields.

Example 1 - MyBB

MyBB forum (<https://mybb.com/>) is a well established PHP-based forum software.

This screenshot is an example of what users see as front-end:

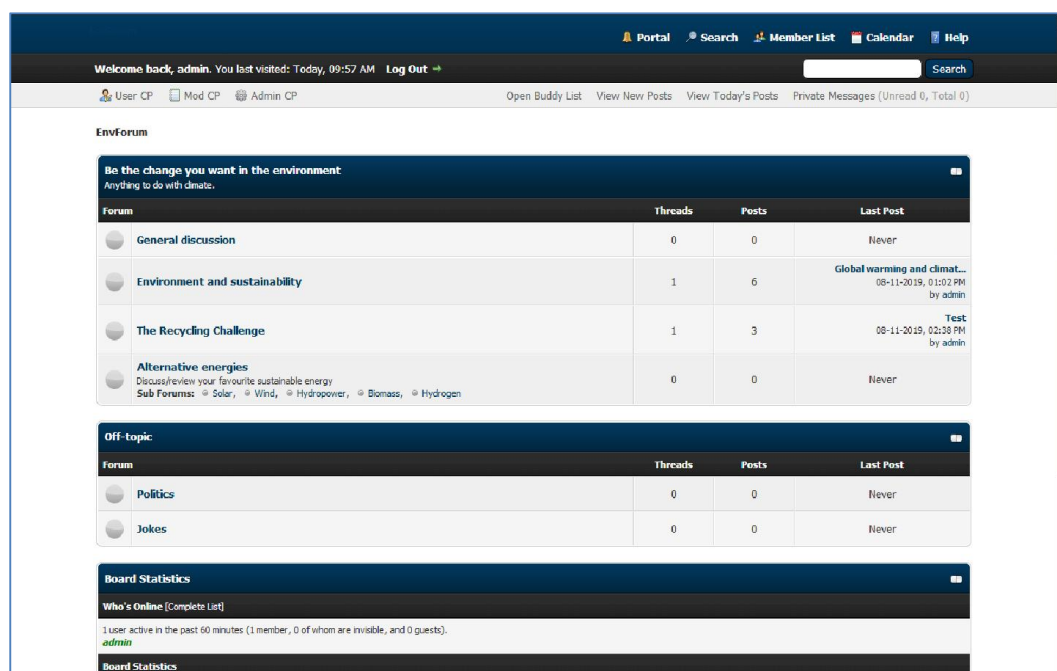


Figure 1 – MyBB – Front-end example (filename: MyBB-01-Front-end-01)

Tiki – Forum revamp - Feature enhancements

In the next screenshot the various components are described:

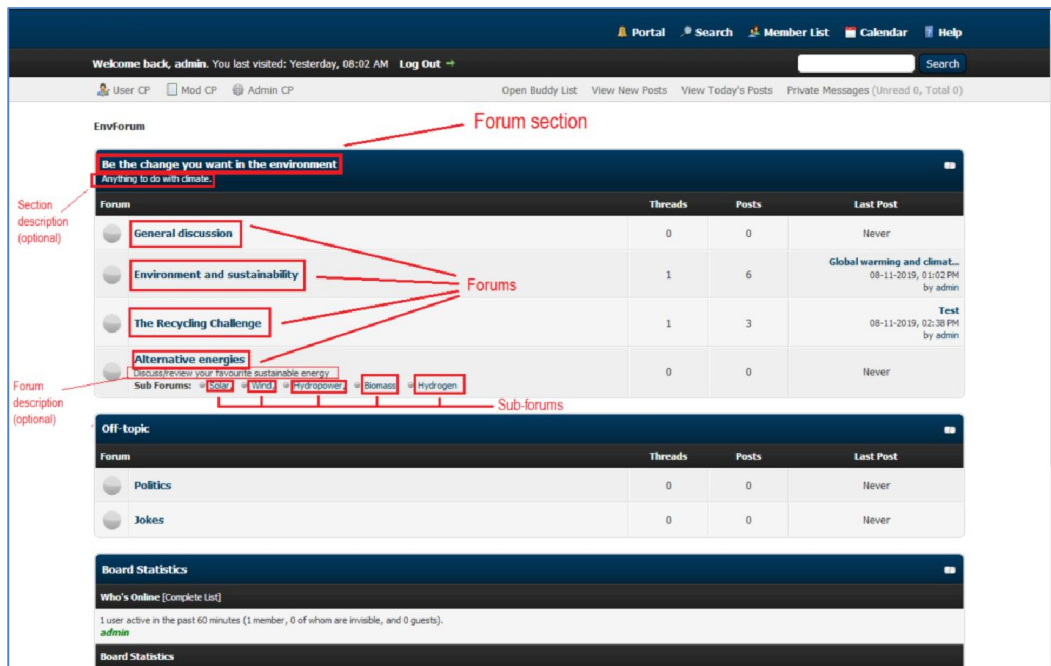


Figure 2 - Front-end example - component description (filename: MyBB-02-Front-end-02)

In MyBB's default theme the forum sections are clearly separated by a gap between one section and the other. There is the option to have descriptive comments, both for the sections and for the forums. Sub-forums can be configured to be displayed as nested inside the parent forum.

Admin control panel

The administrator's view of MyBB forum structure is as follows:

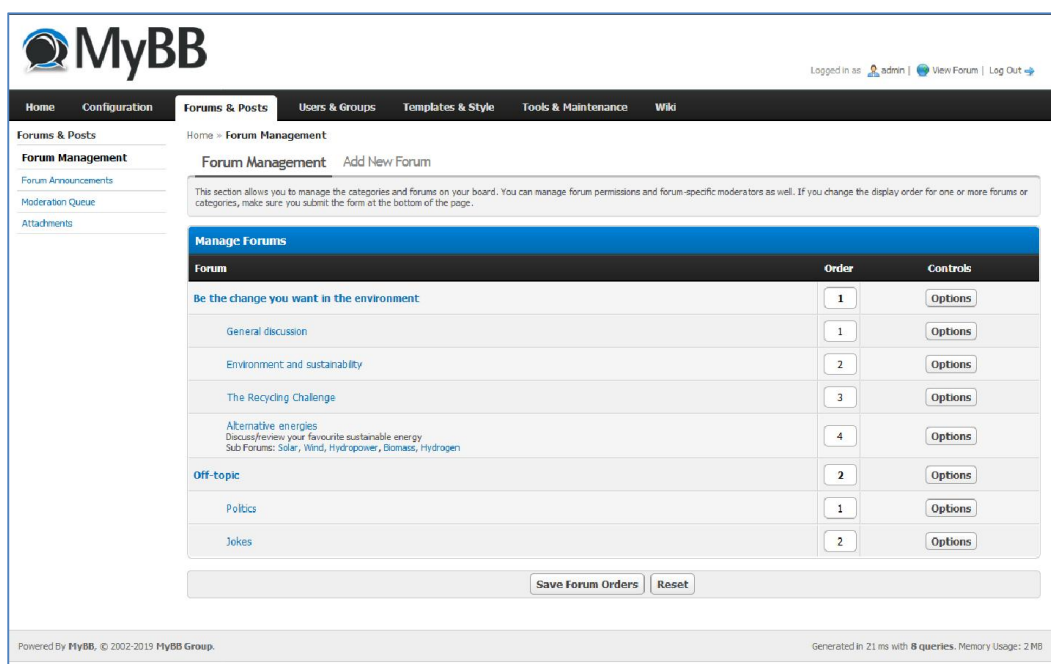


Figure 3 - Forum structure - admin view (filename: MyBB-04-Forum-Hierarchy-01)

Tiki – Forum revamp - Feature enhancements

Once again, in the following screenshot the structure is described:

The screenshot shows the MyBB Forum Management interface. The 'Manage Forums' section is active, displaying a table of forums. The table has columns for 'Forum', 'Section order', 'Order', and 'Controls'. A yellow box highlights the 'Section order' column, and a red box highlights the 'Order' column. Red lines connect the 'Section order' values to the 'Order' values, illustrating the hierarchy. The forums listed include 'Be the change you want in the environment', 'General discussion', 'Environment and sustainability', 'The Recycling Challenge', 'Alternative energies', 'Off-topic', 'Politics', and 'Jokes'. The 'Alternative energies' section is expanded, showing sub-forums like 'Solar', 'Wind', 'Hydropower', 'Biomass', and 'Hydrogen'.

Figure 4 - Forum structure - component description (filename: MyBB-05-Forum-Hierarchy-02)

The admin panel to define and manage MyBB's forum structure uses a numeric 'Order' field to sort both sections and forums within each section.

Sub-forums are also sorted in a similar way:

The screenshot shows the MyBB Forum Management interface. The 'View Forum' section is active, displaying a table of sub-forums. The table has columns for 'Forum', 'Order', and 'Controls'. The sub-forums listed include 'Solar', 'Wind', 'Hydropower', 'Biomass', and 'Hydrogen'. The 'Alternative energies' section is expanded, showing sub-forums like 'Solar', 'Wind', 'Hydropower', 'Biomass', and 'Hydrogen'.

Figure 5 - Sub-forum structure (filename: MyBB-06-Sub-forum-Hierarchy-01)

Tiki – Forum revamp - Feature enhancements

Database structure

In MyBB's database structure (table *forums*) the field 'name' is used for naming sections, forums and sub-forums. To differentiate between sections and forums another field called 'type' is used. If the record is a forum, 'type' will be set to 'f'; if the record is a section, 'type' will be set to 'c' (category).

The parent-child relationship between sections and forums or between forum and sub-forums is set by the two fields 'fid' (forum ID) and 'pid' (parent ID). There is also a 'parentlist' field which is a comma-delimited list of the forum's parent tree, although I am unclear as to whether it's needed.

The order of sections/forums/sub-forums is defined by the field 'disorder'.

Screenshot for MyBB's forum table relevant fields is as follows:

fid	name	description	linkto	type	pid	parentlist	disorder	active	open	threads	posts	lastpost	lastposter	lastposteruid	lastposttime
15	Solar			f	14	11,14,15	1	1	1	0	0	0			0
16	Wind			f	14	11,14,16	2	1	1	0	0	0			0
11	Be the change you want in the environment	Anything to do with climate.		c	0	11		1	1	1	0	0			0
12	General discussion			f	11	11,12	1	1	1	0	0	0			0
28	Jokes			f	26	26,28	2	1	1	0	0	0			0
14	Alternative energies	Discuss/review your favourite sustainable energy		f	11	11,14	4	1	1	0	0	0			0
20	The Recycling Challenge			f	11	11,20	3	1	1	1	3	1565534286	admin	1	20
19	Environment and sustainability			f	11	11,19	2	1	1	1	6	1565528545	admin	1	
18	Biomass			f	14	11,14,18	4	1	1	0	0	0			0
17	Hydropower			f	14	11,14,17	3	1	1	0	0	0			0
26	Off-topic			c	0	26	2	1	1	0	0	0			0
27	Politics			f	26	26,27	1	1	1	0	0	0			0
25	Hydrogen			f	14	11,14,25	5	1	1	0	0	0			0

Figure 6 - MyBB forums table (filename: MyBB-07-Forum-Table-01)

Tiki – Forum revamp - Feature enhancements

Example 2 - phpBB

phpBB forum (<https://www.phpbb.com/>) is another well-known PHP-based forum software.

The users' front-end view in the default template is very similar to MyBB's:

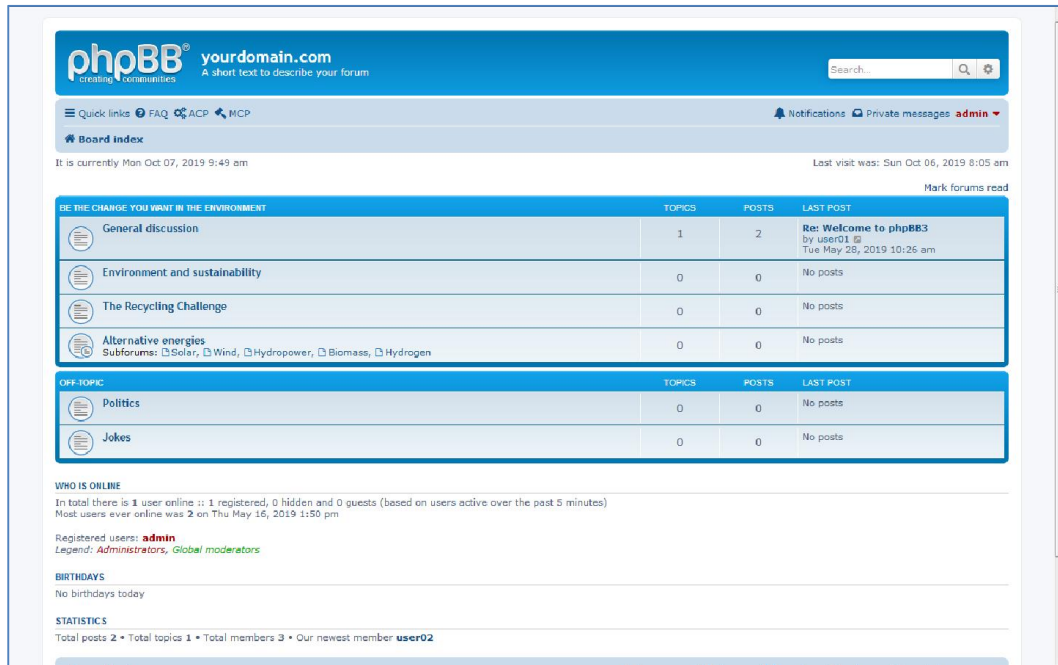


Figure 7 – phpBB – Front-end example (filename: phpBB-01-Front-end-01)

The forum sections are clearly visible here too. In the same way, sub-forums can be configured to be visible within the relevant parent forum.

Admin control panel

In phpBB the administrator control panel is slightly different from MyBB's, in that only the main sections are visible at first:

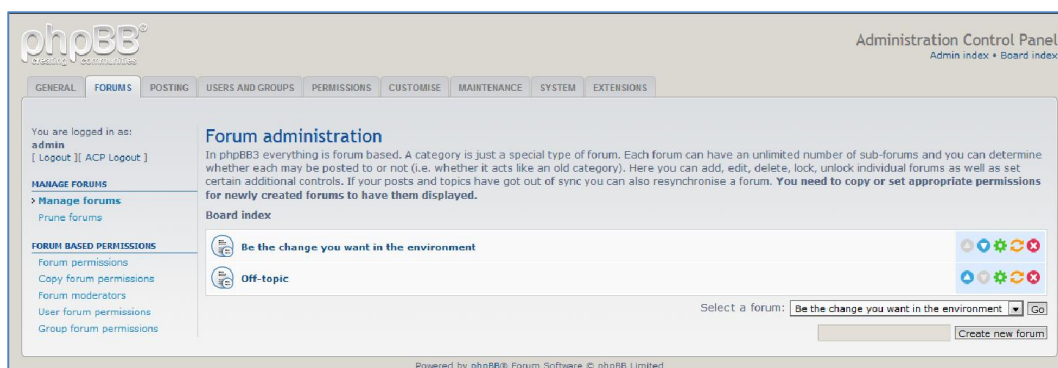


Figure 8 - Forum structure - admin view (filename: phpBB-02-Forum-Hierarchy-01)

Tiki – Forum revamp - Feature enhancements

Another difference is that the order of sections/forums is not established by a numeric field but by manually moving sections or forums up and down with a graphical interface:

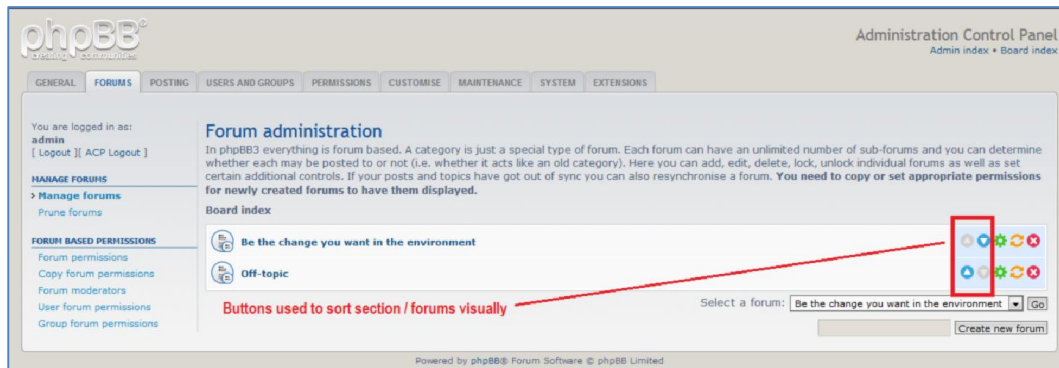


Figure 9 - Forum structure - sort order (filename: phpBB-02-Forum-Hierarchy-02)

In order to drill-down into the forums and sub-forums one needs to click on its parent:

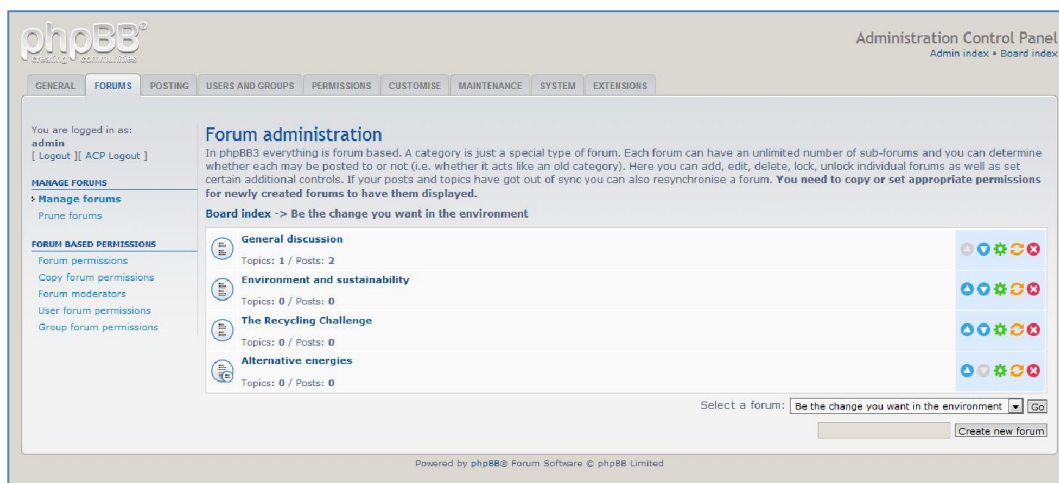


Figure 10 - Forum structure - sub-forums (filename: phpBB-03-Forum-Hierarchy-03)

Database structure

The parent-child relationship between section/forum/sub-forum is organized similarly to MyBB: the fields 'forum_id' and 'parent_id' serve the same function as their MyBB counterparts described earlier.

The main difference between MyBB and phpBB is in the way that forum order is set up: phpBB uses 'left_id' and 'right_id' fields to store its hierarchical structure. This is discussed here

<https://www.sitepoint.com/hierarchical-data-database-2/>

Tiki – Forum revamp - Feature enhancements

This is phpBB's *forums* table view:

forum_id	parent_id	left_id	right_id	forum_name	forum_desc	forum_desc_bitfield	forum_desc_options	forum_desc_uid	forum_link
1	0	1	20	Be the change you want in the environment			7		
2	1	2	3	General discussion			7		
3	1	4	5	Environment and sustainability			7		
4	1	6	7	The Recycling Challenge			7		
5	1	8	19	Alternative energies			7		
6	5	9	10	Solar			7		
7	5	11	12	Wind			7		
8	5	13	14	Hydropower			7		
9	5	15	16	Biomass			7		
10	5	17	18	Hydrogen			7		
12	0	21	26	Off-topic			7		
13	12	22	23	Politics			7		
14	12	24	25	Jokes			7		

Figure 11 - phpBB forums table (filename: phpBB-05-Forum-Table-01)

Tiki - suggested approach

It seems that MyBB's structure offers an approach which is simpler to implement (using a single numeric field for ordering forums rather than left/right hierarchy) and would obtain the same result.

For this reason, my recommendation would be to duplicate MyBB's system onto Tiki.