

## METHOD OF DESIGNING WEB-SITE BASED CMS DRUPAL

*Abstract. The method of development of the site based on CMS Drupal. The technique provides a list of actions on the items that are needed for the construction site. Used as the standard features of the core Drupal, and additional modules.*

*Keywords: DRUPAL, Content Management System, CMS, modules, templates, menus, block, taxonomy, url, web hosting, PHP, HTML, CSS, database.*

**Introduction.** Most Internet users at least once thought about creating your own website. But a difficulty finding documentation, literature and guidelines for creating a variety of parts of the site to the specific needs make this task difficult and time-consuming to implement. Site development – a standard set of steps that are performed by almost every web developer. There are many guides and tips separately to install the software, create pages, design and creation of functional parts of the site. But they are not linked, as described by different people for different requirements. Out of this situation - writing techniques, combining all of the steps towards the creation and placement of a full-fledged site.

**Statement of the problem.** You need to create a methodology of designing a website based on a content management system (CMS) Drupal. The methodology should help identify the basic requirements for the site before it is created, to facilitate the construction site, make it accessible even for non-professional developers, reduce the time for searching and processing information, which helps in creating a site, and help create a sample site to use and update.

### **The main part.**

CMS Drupal architecture allows it to build different types of websites - from blogs and forums to information archives or news sites. Available default functionality of the core CMS, you can increase the connection of additional extensions - "modules" in the terminology of Drupal.

The most important function that provides Drupal:

- One categorization of all types of content (taxonomy) - of forum posts from before blogs and news articles;

- a wide range of properties of building rubricators: flat lists, hierarchies, hierarchy with common ancestors, synonyms, related categories;
- nested categories any depth;
- search the contents of the site, including search taxonomy and users;
- access of users to documents (role model);
- building a dynamic menu;
- Support for XML - format;
- Output documents in RDF / RSS;
- aggregation of material from other sites;
- BlogAPI materials for publication by external applications;
- Authorization via OpenID;
- symbolic meaningful URL (otherwise "human-readable");
- translation of the site into different languages, as well as support for conducting multilingual content;
- the ability to create sites with overlapping content (for example, the total user base or general settings);
- separate site configuration for different virtual hosts (multisaying), including their own set of modules and themes for each site;
- a mechanism to limit the load on the site (automatic shutdown at high traffic parts of the information units and modules)
- update message modules.

As a result of the creation of various sites based on CMS Drupal, identified the main stages and step by step instructions to create a working site.

Creating a site includes 7 stages.

#### 1. Definition of the tasks and functionality of the site.

The very first step in the development of any site is to determine necessary for the implementation of functions and pages, taking into account its specificity. The most commonly used features:

- 1) simply adding and editing pages (text, images);
- 2) the possibility of forming and changing the structure of the site (blocks, menus), and themes;
- 3) scalability - the presence of additional modules that enhance the functionality of the core system (for example, various plugins and modules);

- 4) ability to work collectively on the site (creation of users and the distinction between them);
- 5) registered users can post comments on certain pages (photo galleries and news);
- 6) web-order forms of production. Users can send messages to the administrator or placing directly from the page of the site;
- 7) the organization collecting RSS feeds to the site (news);
- 8) promotion of the site in search engines, setting to work with meta-tags, statistics visits.

## 2. Installation Denwer and Drupal.

To install Drupal necessary HTTP-server, database server, and PHP. To install Apache, Mysql and PHP is recommended to use a package containing all of these components, and designed specifically for the development of sites, for example, Denwer (denwer.ru). Standard installation Denwer fully compliant with Drupal. The basic package contains most of the necessary programs and utilities:

- installer (also supported the installation on flash - drive).
- Apache, SSL, SSI, mod\_rewrite, mod\_php.
- PHP5 with support for GD, MySQL, sqLite.
- MySQL5 transactional.

## 3. Install the required modules.

For quick use of opportunities created php CMS Drupal templates, code files javascript / jQuery files and style sheets css. Many of these patterns are combined into modules (drupal.ru, drupal.org).

To create the site you need the following modules:

1. Administration menu - need for easy to use CMS administration menu.
2. Nodewords, Nodewords basic meta tags, Nodewords extra meta tags - these three modules need to be included in the page keywords for indexing in search engines, such as Google.
3. Google Analytics - a module to enable Google code on each page of your site, which helps promote the site in the list of search results Google.
4. Webform - module that allows you to construct an HTML form on the site, which will perform the necessary functions to communicate with the user.

5. XML sitemap - allows you to create and place on a site map site that helps users to quickly navigate the site structure. Also, this module is useful for many search engines, because they first seek information on the map search site.

6. Webform Block - allows you to embed in website Webform in convenient units CMS Drupal.

7. Backup and Migrate - module allows to backup site database to a file and then restore the database using the copy. Very handy when moving the site to another computer, hosting, etc.

8. BUEditor - editor of HTML code on pages that are created in Drupal.

9. IMCE - module allows you to upload files to the site and the pictures. Personalization of user data.

10. Pathauto - a module that creates a user-friendly way to your website.

11. Keywords - allows to count words, applied to the page for specific keywords for search engines.

You need to download the required modules, unzip one in the folder \ modules and include them on the appropriate page.

4. Selection and installation of the necessary topics.

Theme - a set of files that are responsible for the appearance of the site. Theme defines the HTML-page layout using CSS-files and JavaScript. She gets ready for the input data sets, and output them into a HTML-code.

To select a theme site, you must first decide on the main issues.

1. The required width of the site as a whole: a fixed, full screen or dynamic.

2. How will information succinct pages:

- How many kinds of menus on the site;

- How many columns to accommodate the information, interactive elements and advertising, if you want to use it.

3. What graphic elements are needed on the site:

- What should be the search if it will be included;

- What will be the menu pull-down, deploy, fixed or animated.

4. The main colors of the site: they must not cause irritation of the user should not be difficult for tired eyes, very bright or too dark.

5. The site logo, company logo: combined with a picture or company logo on the background of the main color.

6. The main image, which will be located at the top of the site if it will be included in the design.

7. Will the site monotonous background or not, and whether it will scroll when scrolling site user, or to remain in place.

#### 5. Theme Settings.

Topics supplied with the system Drupal, are stored in the themes of his top-level file structure. Third-party themes that the site administrator loads on their own, it is recommended to unpack the directory sites / all / themes. Most of the option of changing some default settings via CMS Drupal. When a site administrator changes them, then in the directory sites / default / files folder is displayed in which these new settings are saved. Usually there is always present among other things the file style.css.

#### 6. Create content on the site.

The site materials are different in their purpose and content. It can be record, basic setting of that to inform the visitors of web-site, put them before a fact; or record supposing a collective discussion (record of blog, for example); or material main part of that is an image or videotape recording; it can be also, material, being collection of references to other materials incorporated on one or another sign.

The type of material depends on what parts of the page content at will. Therefore, the shape of the material to create each type may have its nuances and especially, but not necessarily. By default, Drupal includes only two types of material:

Page (Page) and Story (note, the story).

In its structure, these materials are no different, but they have different semantic purpose. Material Page for more "static" material: the one that rarely changes. To add content to Drupal, you must:

- Select from the menu Create a publication (or Create content).

After selecting the desired type you'll get a form to fill. In the Title field fits the article title in the Body - the text.

- Expand the section Settings menu.

Title link in the menu can be the same as its title, it may be different (if the title of the article is very long, the links in the menu trying to do a little shorter). More complicated to deal with the choice of location references. The site can be a little menu. There are those that have already been created by the system Drupal (Primary links, Secondary links), but most of the menu developer creates himself. Any menu is a block and as any block can be removed or placed in any area of the site. By default, Primary links menu included, its location depends on the topic (usually somewhere above), and it is not visible simply because at the moment there is no single reference.

- In the Parent item leave option Primary links and
- Retain the material.

Similarly, filled the entire site.

#### 7. Placing a site on an external hosting and domain name binding.

The first step is the placement site for possible use by users on free hosting. This will help to test the functionality of the site, its possible appearance. Then, you need to buy a domain name for the site and a reliable web hosting with the necessary parameters to bind the domain name.

**Example of realization.** According to the proposed method was developed several websites. (For example, ant.dp.ua).

**Conclusions.** On the basis of practical knowledge and analysis of the documentation developed a method of designing a web site based on CMS Drupal.

During the development of the methodology defined features and selection algorithm themes and the creation of site design depending on its specialization, held customize the appearance, functionality and content.

### LITERATURE

1. Todd Tomlinson. CMS Drupal 7. Guide to the development of web site management.- 2011 – 560p.
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