

Typo3

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Declaration

This is to certify that this term paper has been written by me. The articles and literature read for the preparation of this paper has been acknowledged and at the end of document.

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1.Introduction

Year by year we are facing larger volumes of digital data available in the world- according to Wikipedia today there is over 487 billion GB of data. This digital information is often referred to as content or more precisely digital content. It can be text, images, graphics, video, sound, documents, records etc.

There has been and there is a need to manage all this data and it is called content management. It means the management of the content described above, by combining rules, process and/or workflows in such a way that its electronic storage is deemed to be in some kind of order.

To get these tasks done there are many content management systems(CMS) available. In the following paper a short overview of the term CMS is given and then the main goal of the paper is to concentrate on one specific product- Typo3 and to take a little deeper look in it.

2.Content Management System(CMS)

According to www.contentmanager.com a CMS is a tool that enables a variety of (centralized) technical and (decentralized) non technical staff to create, edit, manage and finally publish (in a number of formats) a variety of content, whilst being constrained by a centralized set of rules, process and workflows that ensure coherent, validated electronic content.

The process of using CMS consists of the (web)client, which is used to write data, very often a browser. Then there is a CMS, which has different databases for content(XML), layout and multimedia such as pictures and videos. To generate documents for reader a web server is used.

Some of the basic features that most of the CMSs have are following(Typo3.com, wikipedia):

Separation of content, structure and design. A CMS improves the lifecycle of a website for years to come. The "look and feel" of the site can be changed or relaunched, leaving existing content and page architecture untouched. No need to worry about copying and pasting content into another site, simply publish the new design and the CMS will pull the content into the new look.

Easy content production, no programming skills required. Using a graphical user interface, authors can simply create text, insert images and multimedia files, schedule content (and much more) to build and maintain a dynamic website.

Decentralized maintenance. It is typically based on a common web browser. Users can edit anywhere, anytime. Bottlenecks usually removed.

Configurable access restrictions, which means identification of all key users and their content management roles and the ability to assign roles and responsibilities to different content categories or types.

Content is stored in a database. Central storage means that content can be reused in many places on the website and formatted for multiple devices (web browser, mobile phone/WAP, PDA, printer).

Dynamic content. Extensions like forums, polls, shopping carts, search engines, news management are typically drop-in modules. A good CMS also allows for truly user defined extensions.

Content scheduling. Content publication can often be time-controlled; hidden for previews; or require a user login with password

Workflow tasks for collaborative creation, often coupled with event messaging so that content managers are alerted to changes in content. Typically the digital content life cycle consists of 6 primary phases: create, update, publish, translate, archive and retrieve.

The ability to publish the content to a repository to support access to the content. (Increasingly, the repository is an inherent part of the system, and incorporates enterprise search and retrieval).

Cooperation. Encourages faster updates, enforces accountability for content editors via log files and promotes cooperation between authors.

Content Management Systems come in all kind of shapes and sizes. Choosing a CMS can be a long and difficult process, especially since there are a large number of content management systems available. In Europe alone, you have around 500 systems to choose from. Following part of the paper concentrates on one product- Typo3.

3. Typo 3

3.1 Introduction

TYPO3 is a free Open Source content management system for enterprise purposes on the web and in intranets. It offers full flexibility and extendability while featuring an accomplished set of ready-made interfaces, functions and modules.(typo3.com)

With TYPO3, everyone can participate in web-based communication and customer relations. Seamless integration of multimedia content types and dynamic server-side image manipulation and generation are among the numerous standard options inside the comprehensive toolbox for web-based communication. Also included is an internal messaging and workflow communication system for shared authoring and collaboration.

For authors, TYPO3 is a user-friendly, intuitive tool, allowing content editors to produce and maintain web pages, using sophisticated functions in just a few clicks of the mouse.

For administrators and content managers, TYPO3 features an extremely detailed user permissions system for implementing professional content creation and editing workflows. TYPO3 is a server-side platform-independent application that can be used with virtually every browser available.

Web developers and agencies will appreciate the complete separation of design and content. TYPO3 does not limit the design options expected by professional website designers and site redesigns are easily accommodated.

TYPO3 is database-driven and scales easily to deliver web pages and embedded formats in an enterprise content providing environment.

Initially authored by Kasper Skårhøj, it is available for free and licensed under the GNU General Public License. Today, the core of TYPO3 is developed by two teams in a maintenance tree and a development tree. Independent authors have contributed hundreds of pluggable extensions.

3.2 Features

TYPO3 has grown and expanded rapidly by meeting the needs of clients and end users. When ideas are initiated, they are openly discussed among the group and quickly integrated within the next version of the software or built into an extension.

A CMS can only be successful if content editors and administrators are willing to use it. Usually the usability is a very important factor when choosing a system. TYPO3 maintains a good balance between the two. Administrators offers a wizard for creating a site based on an HTML template or series of templates. For content editors, TYPO3 takes very little time to learn and there are many tools available to help. TYPO3 is a browser-based CMS that runs on most platforms (Windows, Mac or Linux) and is compatible with a variety of current browsers (Firefox, Internet Explorer, Opera, Safari, etc.). With few limits on what editors can use to edit the site, enterprises can easily integrate TYPO3 into their multi-platform environment.

There are two ways to edit in TYPO3; on the web page itself, "frontend" and through the software, "backend". Text is edited using familiar Office icons. You can cut and paste text and images from a program such as Word into the TYPO3 editing window. Images can be automatically resized. Content can be set to hide and unhide on certain dates. It can be restricted to certain users and groups.

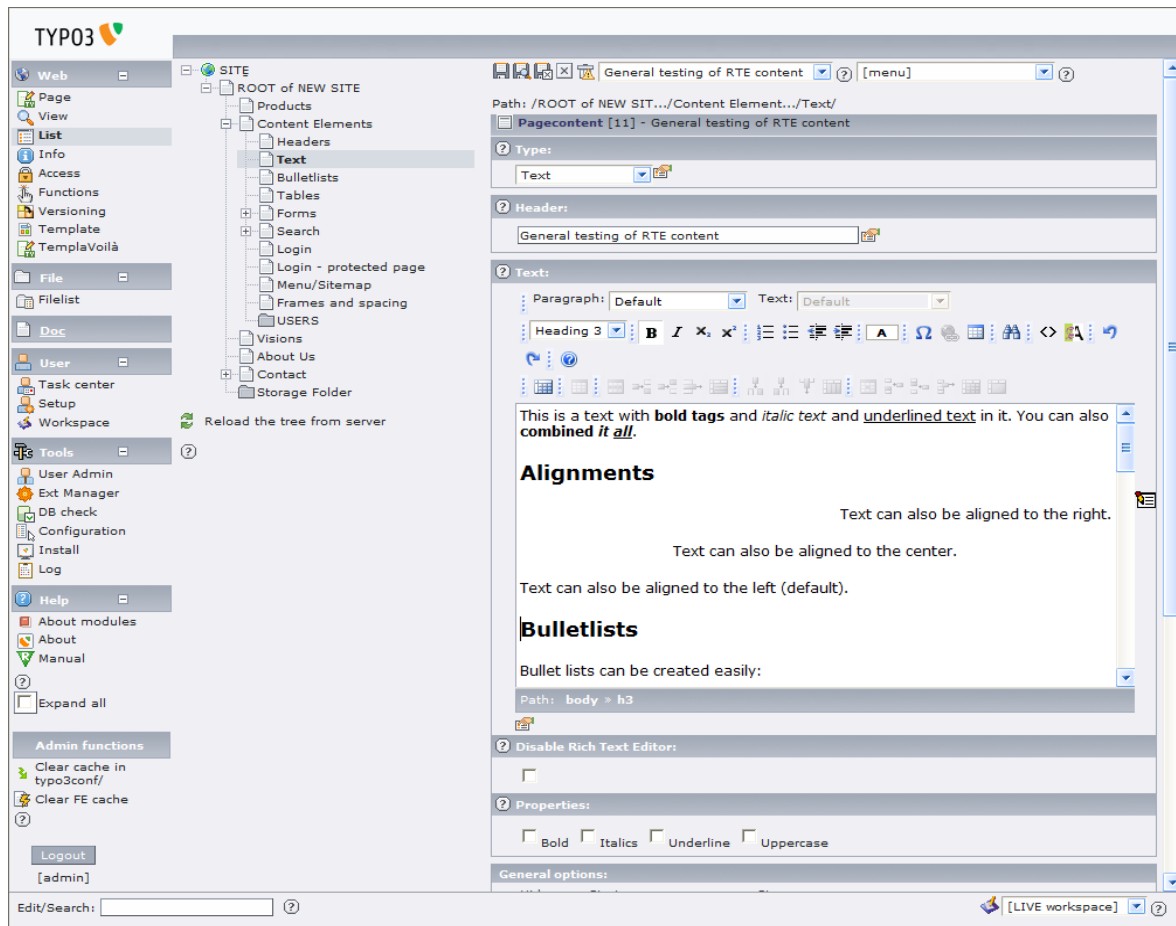
3.2.1 Installation tool

Installation of Typo3 is made as easy as possible by offering the installation tool, which can be downloaded from www.typo3.com. The Install Tool will automatically identify which changes are needed in order to upgrade the database and with a single click, those changes are performed and in addition provides tools for analysis and bug-tracking of the installation. After well guided installation you are ready to start developing your own website. Also all kind of help files and turtorials for installation and configuration are available online and there is also a variety of books about Typo3. But still if you are not ready to dedicate yourself to all the details, you can use the help of the consultancies.

3.2.2 The Backend

The backend, which means the side of the website that is not visible for everyone, offers advanced editing features and tools. Editors can create pages and content, cut and paste

items using multiple clipboards, move records, insert pages or a series of pages, search inside the system for a specific string, view logs, add a translation, access the task center, etc. Unlike many CMSes, TYPO3 intuitively lays out pages in the backend, following a page-tree format that mirrors the website's architecture. Editors will be able to find the pages they need quickly. They can even create shortcuts to access frequently edited pages. As they move or delete pages, the menu will automatically update to reflect the changes.



The backend is divided into three parts-TYPO3 has a backend divided into three main areas: The modules menu (left), the page tree (left/middle) and the module workarea (right).

The “Page” Module is where most site editing of pages and page content is done. Selecting the module will show the architecture of the website in the Navigation Pane. The architecture is represented as a tree structure showing the relationship of pages to each other. The pages visible in the tree are ones that you have rights to access and edit. This is the module that website editors and contributors will use most.

The “View” module shows the page architecture and then a preview of the selected web page as it will appear in the Front End. You are also able to edit page content directly on the previewed page.

Access control in TYPO3 is done on multiple levels. Apart from access defined for modules, tables and tablefields, every page has an owner, group and settings for each of them. Page permissions can also be set here by Administrative users.

Module “New” offers very easy new page creation. As you create pages, TYPO3 will

organize them in the hierarchy of the page tree. If you want to change the site architecture, you can simply move the pages around within the system.

Backend user administration. Backend users are allowed to log into the TYPO3 backend and do permitted actions. Each user can also be a member of one or more groups and each group can include sub-groups. Groups contain the main permission settings you can set for each user. Many users can be a member of the same group and, thus, share permissions.

TYPO3 offers a Rich Text Editor which allows WYSIWYG editing of the web pages. This resembles Word or any other word processor so closely that users will find it extremely intuitive to operate. As an administrator, you can configure it to display your stylesheet classes and filter unwanted HTML.



3.2.3 The Frontend

The frontend is the site like everyone can see it in the web. Editing through the frontend allows editors to make changes directly on a page. They can navigate through the site, making updates and additions with little effort using toolbars at the bottom of each piece of content. When a user is logged in he can make changes just by clicking on a small pencil icon. After that the RTE opens, which is really easy to use. Changes can be made just in some minutes.

3.2.4 Templates

TYPO3 offers a wizard for creating a site based on an HTML template or series of

templates. You define where you want the dynamic content or menus to appear. You can further extend the templates through a well-documented scripting language called Typoscript. This provides you with the tools to access your data in a variety of ways. Not only is there a wizard for creating templates, but also there is a similar tool for creating your own extensions called the Extension Kickstarter. While it may take awhile to learn all aspects of this complex system, building a basic site is very simple to accomplish.

3.2.5 Extensions

Since TYPO3 is so modular and well written, it has allowed developers to quickly create their own extensions and share them through a central repository (<http://typo3.org/extensions/repository/>) that is available to the community. Over 800 extensions are freely available today, with many others in the planning stage. With a click of a button, you can install a shop, news system, calendar, gallery, document repository, search engine, website statistics package, login box and newsletter.

TYPO3 provides you with a framework for building your own application by using the tool called Kickstarter.

The extensions are managed by the Extension Manager (EM) - the control center of extensions.

3.3 System Requirements

TYPO3 is a web application programmed in PHP, but it is not an application in the usual sense. It is installed on a web server alongside PHP. Users work with it through a web browser, like Internet Explorer or Mozilla Firefox and TYPO3 is run on the server.

To run TYPO3 successfully there are some requirements for both server and client (user) that must be met.

Webserver

Operating System: Unix, Windows or Mac

Webserver: Webserver Apache, IIS

Middleware: PHP4 or PHP5 (Note: Starting with TYPO3 4.2.0, all releases will require PHP5.2!)

Database: MySQL or any other database system supported by the TYPO3 DBAL (e.g. Oracle, Postgres and a lot of others)

Hardware: A normal webserver setup will do, with some modern CPU and at least 256 MB Ram. As with all database-driven applications, more RAM is advisable though.

Client (user)

Recommended: Mozilla Firefox on any OS, Internet Explorer 5+ on Windows

Required: Any graphical browser on any OS (IE, Opera, Safari, Konqueror on Windows,

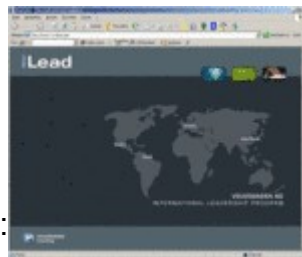
Unix, Mac)

Hardware: Relatively modern computer

3.4 References

Today there are tens of thousands and soon even more websites created with TYPO3. Thanks to the Open Source philosophy TYPO3 has been able to do what most commercial systems will never reach - a truly worldwide distribution and thousands of users on all levels.

Some of the examples of the websites created by using Typo3:



VOLKSWAGEN COACHING:



DHL Event Manager:

On the website typo3.org you can find a long list of different sites created with Typo3.

4. Conclusion

This paper gave a short overview about content management systems and took a deeper look at the open source product Typo3.

Typo3 offer functionality that a CMS should offer and many more features. It is made as easy as possible for both- site administrators and content editors. It allows to produce websites with separated content and design. And if you it does not offer a functionality you need, there is always opportunity to create it.

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