

# HANNON HILL

*Content Management Software*

## Managing a Multi-lingual Website with a CMS

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## Background

### *What is a Content Management System?*

A Content Management System, or CMS, is a program designed to help develop and maintain shared information, primarily websites. A CMS typically uses an XML format separating content from design elements, thereby allowing numerous combinations with minimal work. CMS's are designed to allow multiple users to edit and publish shared information in a variety of formats.

XML's flexibility makes having a CMS a huge asset for businesses and organizations, particularly those which need to publish content in multiple formats. Any time there is a large amount of content to create, and a multi-location staff responsible for managing it, a CMS becomes a tool not just for updating a website, but for communication and collaboration between staff.

This is why a CMS is so important for companies with multi-lingual sites. Whether your company operates completely separate sites for different languages, or wants to offer multi-lingual options within one centralized site, a CMS removes the logistical barriers to global accessibility.

### **Multi-Lingual – the Old Way**

Before CMS technology was available, maintaining multi-lingual websites had to be done manually. This generally meant creating and managing a separate site for each language. Rarely is content created and translated into each language by the same person, and keeping up to date content on two or more similar (but not identical) sites causes confusion, redundancy, and inconsistency.

Even when companies are using a basic CMS, maintaining multiple sites is still an issue. Most CMS products are designed to manage only one site. If your company publishes separate sites in separate languages, then separate CMS's must also be used, and content cannot be shared across the different platforms.

For companies who prefer to have one central site with tight integration between the different languages, a typical CMS simply does not have the capability to handle the multiple data structures and complex configurations, and relationships that are needed.

### **A Better Way**

Some specialized CMS products, however, offer a better way to manage multiple or multi-lingual sites.

### *Managing Multiple Sites*

There are two ways to approach a multi-lingual site. The first is to simply treat each language as a separate site. For example, if your company has locations in the United States, Germany, and Japan, your sites may be [www.yoursite.com](http://www.yoursite.com), [www.yoursite.de](http://www.yoursite.de), and [www.yoursite.jp](http://www.yoursite.jp). Or, if your company is based in one country but needs separate sites to manage multiple languages, you may choose to do [www.en.yoursite.com](http://www.en.yoursite.com), and [www.jp.yoursite.com](http://www.jp.yoursite.com) and so on.

When you have two or more sites with the same content, you need tools that minimize duplicate work, and aid in keeping each site consistently up to date. That's where the CMS comes in.

### **Reusing Design Elements Across Sites**

One important time saving feature of using a multi-site capable CMS is the ability to reuse elements across multiple sites. This means that for both your English and Japanese site, for example, you could use the same templates, CSS, index blocks, etc. With just a simple edit to the main template, changes are replicated on every page using that template, in both language sites.

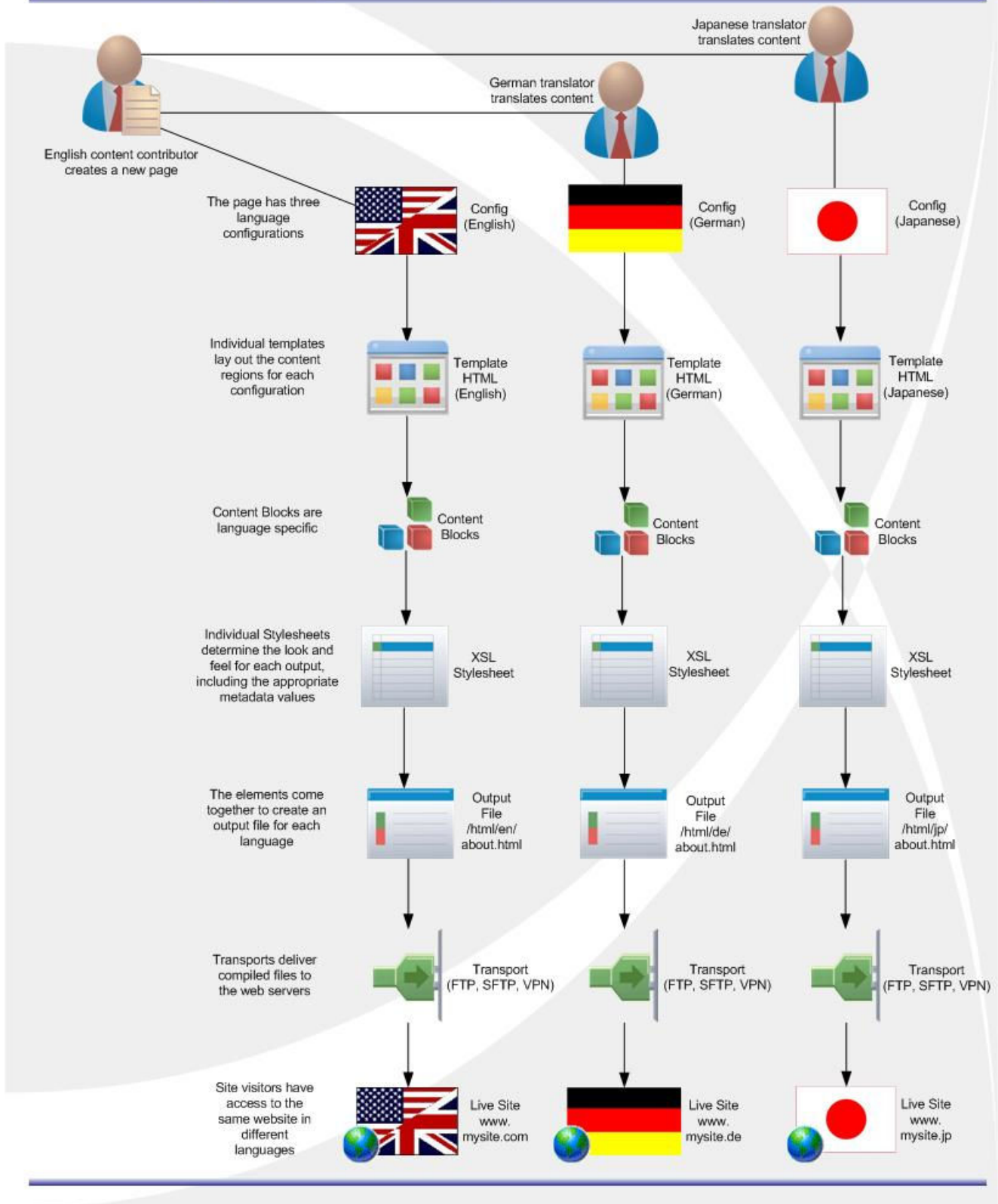
Managing multiple sites in this way not only saves developer time, it ensures the consistency of your company's online corporate image, regardless of language.

### **Notification of Changes**

Using a multi-site CMS, individualized workflows can be created to ensure that all content stays consistently up to date. If a user makes changes to a page in one site, the users responsible for that same page version in the other language sites are automatically notified that their pages need to be updated. The CMS also offers the ability to compare documents, showing users clearly the updates that are need.

The diagram below explains how the granular format of a CMS makes it easy for users to manage multi-lingual sites by letting the more complex processes occur automatically:

# Multi-Lingual Publish Process



## **Multi-Site Flexibility**

Although one of the key draws for the use of a CMS for multi-site management, it is important to remember that flexibility is still an option. If certain content is relevant only to a specific language site, that content need not be linked to any other site, and may be maintained separately. It may still use the same templates, indices, and CSS, but does not require automatic generation of mirror pages. Using a CMS should never restrict a company's options; rather it should be able to facilitate your company's requirements and make achieving those requirements simpler and easier than ever before.

## ***Multiple Languages in One Site***

Some companies desire a more tightly integrated multi-lingual site, and prefer to offer only one website with multiple visitor-selected language outputs.

In such a case, users may switch between languages on any page on the website, rather than navigating separate sites to get to the same page in another language. This is a tedious and highly-technical project if undertaken by hand. However, with a CMS, even non-technical business users can still manage their own online content – in multiple languages – with ease.

Here's how it works:

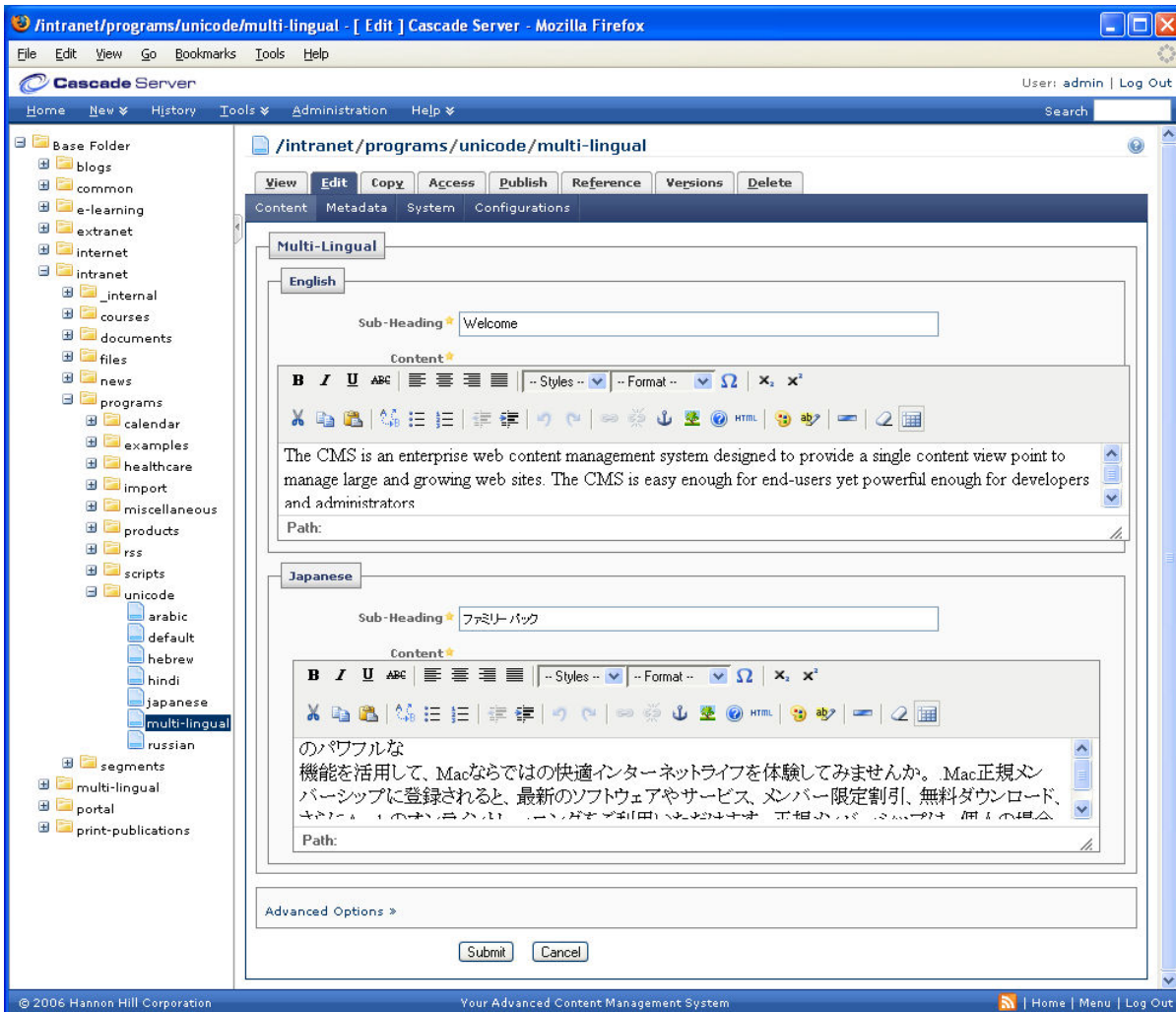
## **Multiple Outputs**

Many CMS-driven sites take advantage of the CMS's ability to easily generate multiple outputs. Common outputs for a single page include PDF, Printer Friendly, Text Only, Handheld, or XML. Multi-lingual sites operate the same way. Users can select English, German, Japanese, etc, getting the same page, just in a different language.

Each output has specific stylesheets and templates which select the elements that get displayed and how they are displayed. This is how the English output knows to only show the text entered into the English data fields, and the German output only shows the German text.

## Structured Data Input

When a user edits a multi-lingual page, multiple languages are available. Here we see two languages, English and Japanese.



The administrator can determine which fields are available to individual users. For example, if the primary content editor is responsible for English, s/he needs access only to the English fields. The Japanese translator, however, can be granted access to view the English content but not change it. The CMS will only make the Japanese fields available to the translator in order to make translation and comparison easier.

## Multi-Language Menus

A great advantage to using a CMS to manage any website is its ability to automatically generate menus, site maps, and other indices. For some CMS products, this is where multi-lingual websites really pose a challenge.

To generate menus, the CMS pulls information from the metadata fields for each page. In order for each language output to have menus in its own language, the CMS must allow additional metadata sets.

These additional sets allow users of each language to input the appropriate metadata. Individual stylesheets for each output ensure that the appropriate metadata is used to populate the menus for each language.

### ***Other Multi-Lingual Features***

Having the right CMS doesn't just make it possible to manage a multi-lingual site (or sites), it makes it easy.

#### **Support for International Character Sets**

It seems obvious, but nonetheless, if you want to develop and maintain a multi-lingual site, your CMS must offer support for international character sets. The best way is to use a CMS designed to handle all special characters and major international languages using the Unicode standard. This enables users to seamlessly switch from language to language without changing the encoding of any page. It also ensures that text will appear in the appropriate character sets regardless of the regional settings on a visitor's browser.

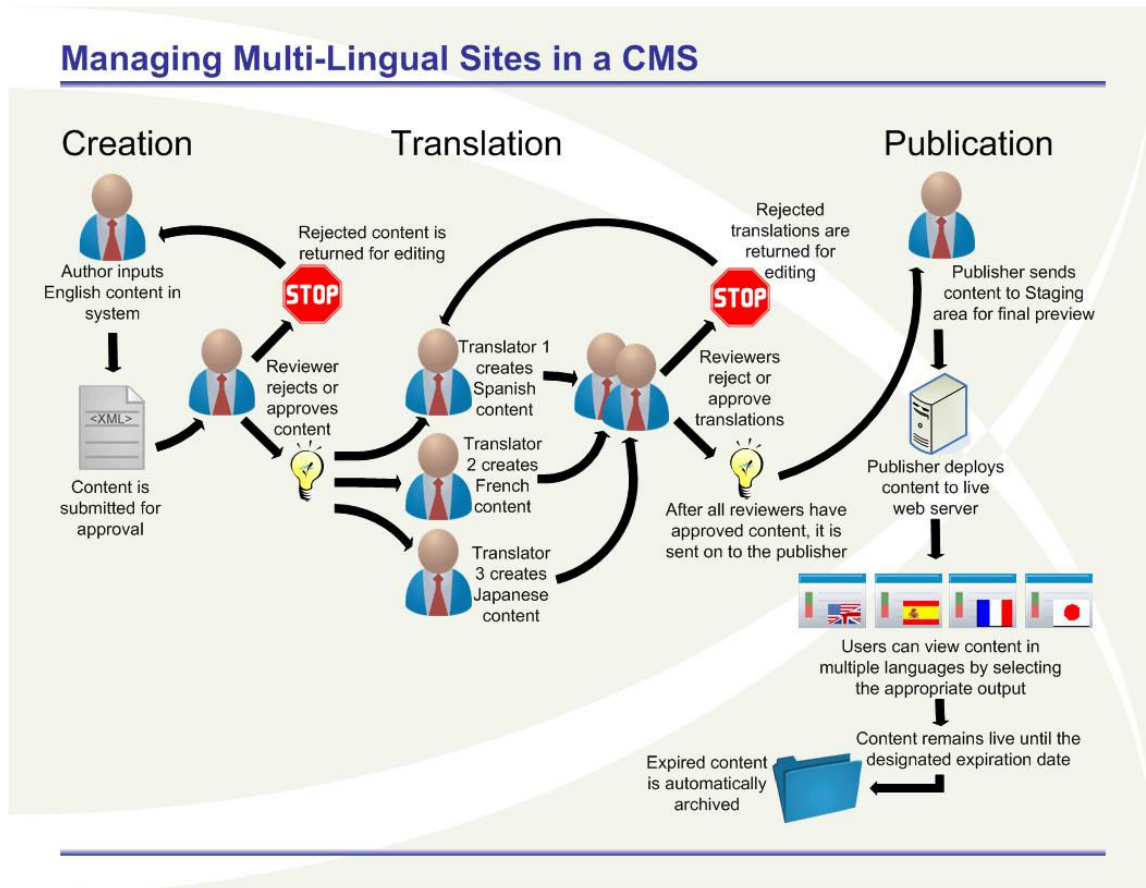
#### **Multi-Language Spell Check**

Most business users rely on spell check to some degree, and most CMS's offer at least an English spell check dictionary. If your users are managing text in multiple languages, having a single-language dictionary is not only ineffective, it's a hindrance when it continually picks up foreign words as misspelled.

It's important, therefore, to select a CMS that has multi-language spell check capability. You can select only the languages needed for your company.

## The User Experience

The success of any CMS implementation depends on its usability for the non-technical users who will be managing the content. Whether your business intends to maintain similar but separate language sites, or tightly integrate multi-lingual outputs into the same site, the process of content creation and workflow approvals is largely the same:



Workflow processes like this can be customized to accommodate an unlimited number of content creators, translators, and reviewers. Depending on your company's needs, the CMS can be set up to allow original content to be authored in multiple languages, or it can be restricted to allow only one, with all other languages being strictly translations of the original content.

The most important factor is for all content for each language to be put through the proper approvals in a user-friendly and streamlined way so that no inaccurate or conflicting content is published to the web.

## Conclusion

As globalization increases at a steady pace, and localized content is more fully embraced, businesses and organizations stand to benefit greatly from offering multi-lingual websites. Whether your company is only just exploring the idea, or has been managing multi-lingual sites by hand for years, the right CMS can revolutionize the efficiency and quality of your sites.

## About Hannon Hill

Founded in 2001, Hannon Hill is a leading provider of powerful web content management software. The award-winning Cascade Server application provides advanced solutions for online information management and has been a recipient of the 'Best of Show Award', from Internet World Magazine. Most recently, Hannon Hill was recognized by *Inc. Magazine* placing 247<sup>th</sup> amongst the prestigious **Inc. 500**, representing the top 500 fastest-growing private companies in the nation. Hannon Hill continues to accelerate its customers' online success.



Located in the high-tech capital of the South, Atlanta, GA, Hannon Hill continues to deliver high-quality content management solutions. Its products enable users to easily update their websites through an easy-to-use web interface. Hannon Hill's content management solutions allow users to maintain up-to-date, accurate, and meaningful website content while decreasing associated costs.

Hannon Hill's WCM solutions provide core content management capabilities for management of online information. Our solutions have been implemented in all types of industries, including higher education, health care, real estate, energy, hospitality, and publishing. We provide a comprehensive tool set that provides all the necessary modules to manage the complete content lifecycle.

Hannon Hill is now in its ninth year of operation. Product sales and overall revenue have increased steadily in each year of operation. Currently, approximately 60% of our revenue is generated from software licenses, 10% from maintenance contracts and 30% from professional services associated with integration and training.

Most of our annual revenue is re-invested in product development. The majority of our business is generated through strong client references and by offering numerous informational resources; we do not conduct expensive advertising and marketing campaigns. Our customer acquisition costs remain well below average, enabling us to focus above average resources on research and development.

Hannon Hill is large enough to be completely financially secure, yet small enough to ensure a high degree of personal attention. We pride ourselves on superior customer service and satisfaction, and believe this approach is the best way to ensure our continued long-term viability.

## Partial Client List

<p><b>Education (125+ Higher-Ed Clients)</b></p> <p>Belmont University Bowdoin College Brandeis University Campbell University Carnegie Mellon University Clemson University College of William and Mary Cornell College CSU- San Marcos CSU-Chico Duke University Earlham College Eastern University Eckerd College Gardner-Webb University Gonzaga University Harding University Heinz School of Public Policy Hofstra University McMurry University Reed College The Juilliard School UC Hastings College of the Law UC-Irvine University of Alaska - Southeast University of Detroit Mercy University of Houston University of Maryland – AGNR University of Miami School of Business University of Missouri (Mizzou) University of Richmond University of Texas at Arlington Vassar College</p>	<p><b>Government and Non-Profits</b></p> <p>City of Irving, TX County of Charleston, SC Delaware Dept. of Education US Department of Justice Federation of American Scientists Henderson (NV) Libraries NV State Office of Employment Working Today – Freelancers Union YMCA</p>	<p><b>Technology</b></p> <p>Adaptive Microsystems Beacon Technologies China Mobile Computer Sciences Corporation FileMaker.com Iona Technologies MediaGrif PGP Corporation Servigistics, Inc Silverpop, Inc The North Highland Co.</p>
	<p><b>General</b></p> <p>Brand Atlanta British Petroleum Costco Travel Cummins Marine European Investment Bank IT World Canada Milliman Okemo Mountain Resort Perillo Tours SCOREGolf Strang Communications Universal Air Travel Plan Waste Connections</p>	<p><b>Healthcare</b></p> <p>American Thoracic Society MCG Health System Noland Health Emory Healthcare ProHealth Care St. Joseph's Hospital of Atlanta Texas A&amp;M Health Science Center University of Utah Healthcare</p>