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Web Site News Writer

Summary

The concept of a database driven news writer on a Web site is to give the client an easy way to add, remove and amend news items to the site. Site visitors can subscribe to be e-mail notified when new news items are added to the site. Site visitors can obtain print versions of the articles and send the article as an HTML e-mail. This solution makes it easy for a client to keep their Web site up to date and increases site visitor communication.

An example of what the site visitor would see is in Appendix 1.

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News Items

Every visitor to the sites is a potential customer. By repeat bringing these visitors back to the site they remain informed of the latest developments, which may result in business for the CLIENT.

Site visitors are encouraged to subscribe to an e-news feature by entering their e-mail address into a specially created text field on the site. They may select to only be notified about news on specific subjects.

What the e-news feature does is every X number of days (the 'X' value is set from the SUPERUSER site control panel) an e-mail is generated which contains X number (again controllable through the control panel) of the latest news articles posted. The e-mail is then sent to all the visitors who have left their e-mail addresses through the e-news feature.

This completely automated feature dramatically increases the business value of a Web site.

Visitors can also subscribe to be e-mail notified of items that don't get made into news items. For example a quarterly newsletter or other information resources that are added to the site.

The system allows the CLIENT to add images to news articles, which may be relevant photographs or diagrams.

The system can be set to email prompt the CLIENT that in the last X days no new news articles have been posted.

Site visitors can view articles in categories, with the most recent articles first. They are able to search the news article archive, e-mail and print the article.

An example of what the site visitor would see is in Appendix 1.

Defenitions

SYSTEM ADMINISTRATOR

CLIENT approved personnel with access to advanced administrative features and reports.

SYSTEM ADMINISTRATORS will be able to create, add and revoke USERS and SUPERUSERS from the system.

SYSTEM ADMINISTRATORS have complete control of all aspects of the system and are not restricted by company.

SUPERUSERS

CLIENT approved personnel with access to advanced administrative features and reports.

SUPERUSERS will be able to create, add and revoke USERS and other SUPERUSERS from the system.

Only once proposed input of a USER is authorised by a SUPERUSER will it go live to site visitors.

SUPERUSERS will only be able to affect changes to sections that have been assigned to them.

USERS

CLIENT approved personnel with access to the administrative features of the site. USERS may only affect change to items within the area of the company they have been assigned to.

SITE VISITORS

Public visitors to the Web site.

Login and Authentication

The CLIENT will be using a dynamic database to administer any changes and additions to the news on the site. Given the range of data that is likely to change, a fully featured set of site administration tools are required.

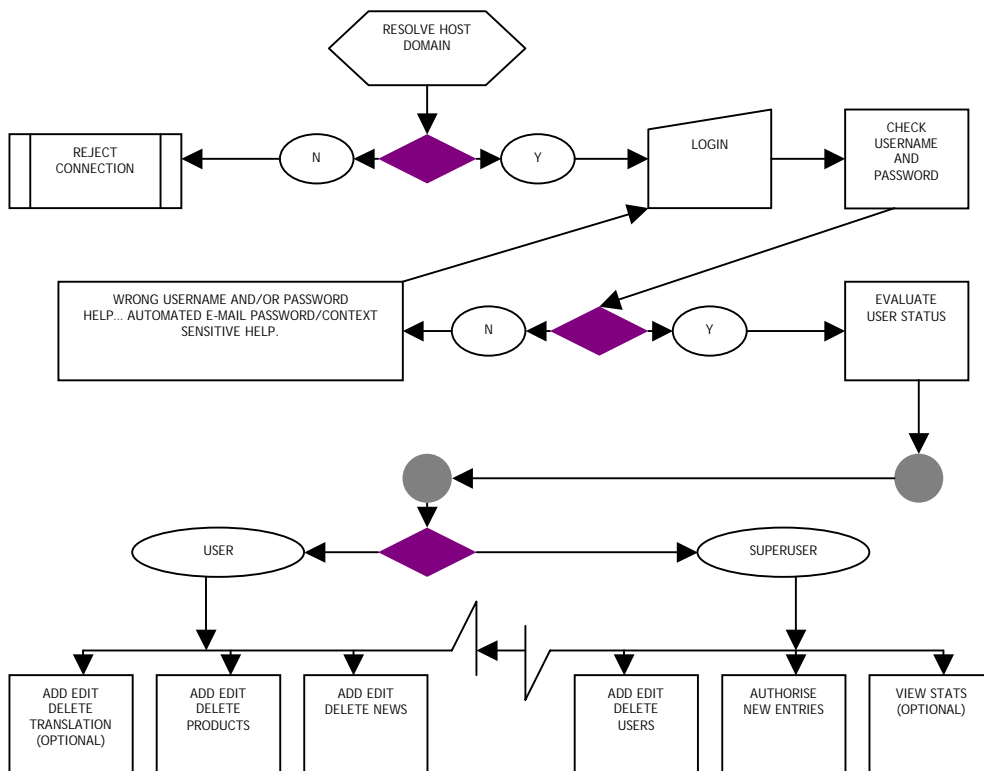
The system allows the CLIENT to validate data before it is put on the publicly available Web site. This feature requires two types of USERS, USERS and SUPERUSERS.

USERS will be able to perform some of the standard site functions and will always need their proposed site changes and additions validated.

SUPERUSERS will have the same level of access as USERS as well as some higher-level administration features.

As an extra safeguard it can be set up so that only USERS logging in from an authenticated CLIENT connection would be allowed on the administration system.

The data flow chart below shows how the system deals with a login request. You'll note that the process is without end as this process forms the basis of all other admin related tasks.



An example log in from a Web page and the resulting screen for a SUPERUSER is shown below.

LOGIN HERE

USER NAME:

PASSWORD:

The subsequent control panel (example below) gives the details of the logged in user. In this case 'Rory Jenkins' who has SYSTEM ADMINISTRATOR status.

- Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media History Mail Print Edit Discuss

Address <http://212.38.95.> Go Links Test WIP E G G BBC

LOGIN DETAILS

NAME: Rory Jenkins
RANK: System Admin.
E-MAIL: rory@embado.com
LAST LOGIN: 18/6/02 - 21:46

SYSTEM MESSAGES

Date	From	Subject	Type	Act.
NO FURTHER MESSAGES				

NEWS ADMINISTRATION

USER ADMINISTRATION

NEW ARTICLE IN:

CATEGORY: FILTER:

Category	Headline	Date	Avail
Industry	Rail Systems	16/04/02	✓
Customer	The Advantage	16/04/02	✓
Customer	Tico Bellows	16/04/02	✗
Customer		16/04/02	✓
Customer	IMPACT - LDAR (Leak Detection and Repair) Service	16/04/02	✓
Company	Impact action on fugitive emissions	04/04/02	✓
Company	Cost Savings	04/04/02	✓
Company	Planned Approach	04/04/02	✓
Company	Sealing with IMPACT	04/04/02	✓
Company	Aussie Olympic Honour	04/04/02	✓

ADD A NEW:

USERNAME: RANK:

Rank	Name	Company	Status
System Admin.			●
Super User	David Allen	embado ltd	●
User	Guest Access		●
User	Paul Abrahams	embado ltd	●
System Admin.	Rory Jenkins	embado ltd	●

In this example there are no current SYSTEM MESSAGES, which would include requests to edit and authorise a SUPERUSERS or USERS proposed news item. Once a SUPERUSER validates a news item it would appear live on the Web site.

The NEWS ADMINISTRATION area allows the creation, deletion or amendment of news items, which appear live on the site, after validation. This feature is available to all USERS. It has been assumed that most clients will have news articles in various categories.

The USER ADMINISTRATION area allows the creation, deletion or amendment of other users of an equal or lesser status.

An optional TRANSLATION TOOL allows non-English speaking companies to replace the text on their company site with text in their desired language.

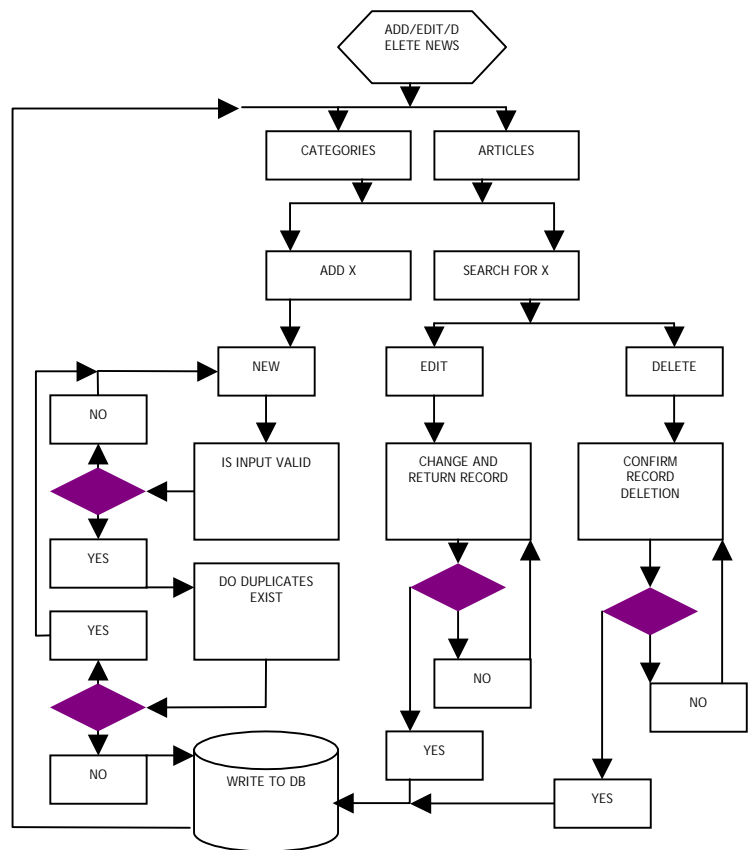
News Administration Tool

The news articles feed into the live web site. News articles are selected on the basis of their category and date. The most recent article(s) from each category (if present) can be selected and used on the home page. One of the articles is randomly selected as the leading story. This gives a continually changing and therefore fresh home page.

News articles can be displayed on the home page as 'snippets' showing the headline in full, then the first X number of words from the body of the article this is tailed with a 'read more...' link to the article in full.

On the news page(s) of the Web site, visitors may view all articles in a category or search through articles.

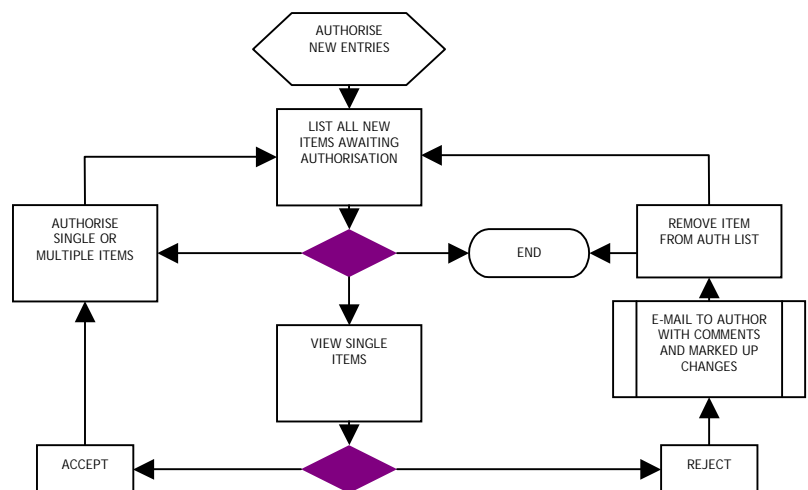
The 'news tool' can be adapted to drive other information areas of the site such as a resources section where articles written by the company that might be of use or interest to their sector are made available to site visitors. Again the concept is to attract repeat site visitors who will subscribe and continually learn more about the CLIENT.



Authorise New Entries

Only SUPERUSERSs may access this set of controls. The authorisation control tool set allows SUPERUSERSs to view a list of items that have been posted by USERS and are awaiting validation.

SUPERUSERS may select entries from the list of waiting news items to view them in more detail. If the entries are compliant with CLIENT policy the SUPERUSERS may authorise them with a personal code. The entry will then appear on the live web site. Items that are rejected remain stored but not visible on the public web site.



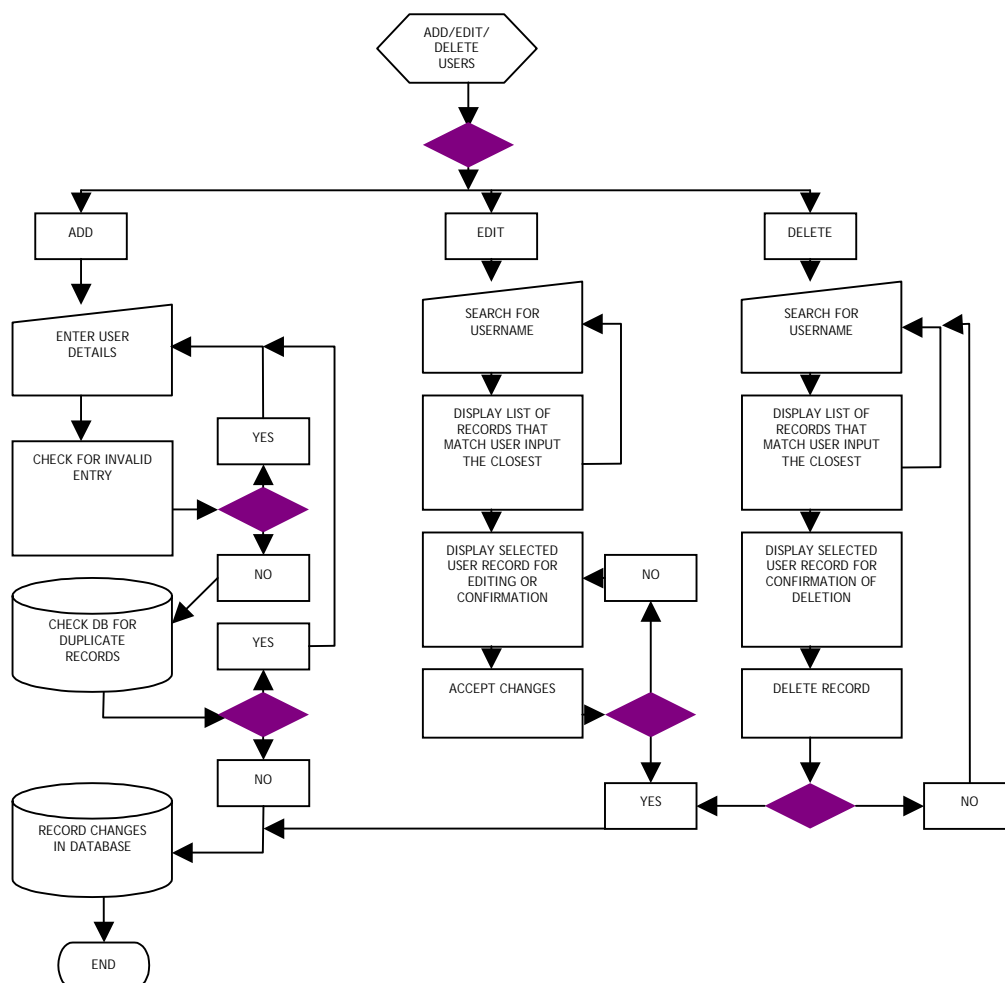
An e-mail notification goes out to the author of the entry informing them of the status of the item. Rejected items may be re-edited and re-submitted to the process by the original author. SUPERUSERS may subvert the system to edit any other USERS entries.

This means that CLIENT can give a trusted group of individuals control of the editorial content of the site, ensuring that it complies with the group standards while still maintaining a high and varied level of content from USERS.

User Manager

The user manager is a feature that is only available to system administrators and SUPERUSERSs. The user manager allows a SUPERUSERS to add new USERS, edit existing user profiles and revoke current user privileges. USERS who have lost their passwords etc. will be dealt with by an automated system. The same level of validation and error control exists within this data flow model to prevent errors being created during the add user phase.

A user tracking system allows SUPERUSERSs to see when USERS were last active, what they have been doing, i.e. authorship of documents, products or news items. All USERS are tracked through the system during each visit. At the end of each visit these records can be written to a permanent record for future reference and reports.



Simple Search (Optional)

The simple search feature allows site visitors to enter free text into the simple search text box and hitting the go / submit button will trigger a process that searches all data fields within the news articles database for matches of that word, words or phrase. The simple search then returns a summary of results in order of the most likely. Visitors can then browse the summary listings and click through to specific information from there. There is then the option to undertake an advanced search.

To help visitors quickly identify the object of their search returned summary information will be grouped according to category.

Advanced Search (Optional)

The advanced search feature is a specialised tool that is intended to allow site visitors to narrow the terms of their searches to quickly find the information that they are looking for. It differs from the simple search, available on each page, offers the user choices, such as searching within an category, or just searching for a particular product number etc.

Again, as with the simple search, the summary results are returned grouped according to topic.

Translation Tool (Optional)

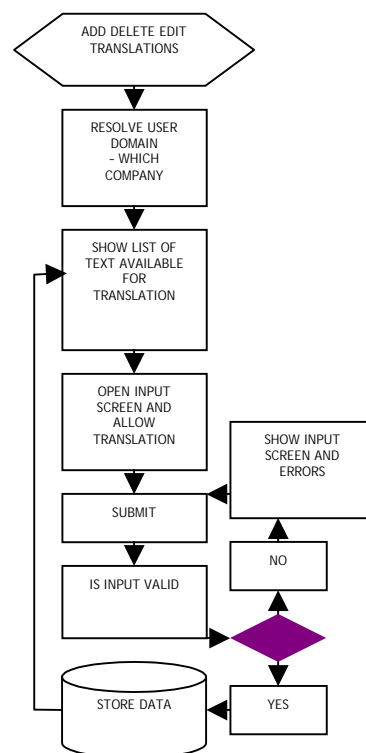
For those CLIENTs with an international target audience, the ability to present all or part of the site in multiple languages can add business value.

The translation tool is available to all USERS. It allows USERS from CLIENT companies to add additional language translations of news articles. Articles may be translated over a period of time or all at once, the system allows that every text entry can be translated. By default all content and entries appear in English. (See 'determine language settings' below).

To the right you can see the process involved in adding a translation to.

A site can be built where not only content, but menu items change to the resolved language.

Once a translation has been made active it will appear in place of the English text on the site if the visitor's language resolution matches the language of the translation.

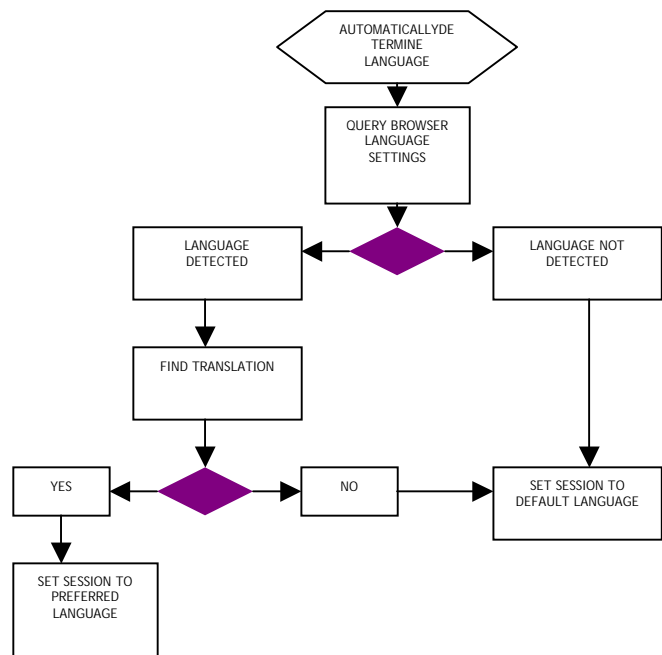


Language Resolution (Optional)

The process to resolve the language that the visitor wishes will be twofold. Primarily the web server will interrogate the visitor's browser and analyse how the browser is set up.

From this the server will be able to find which language the visitor has set their browser to then serve a correctly encoded page based on those settings. The server will replace English text elements of the web site for elements (where they exist on the database) in the language determined from the visitor's browser settings.

This process ensures that the page is sent to the visitor's computer custom build for them. It requires no input on the part of the visitor.



The secondary method is to give the site visitor a drop-down menu allowing them to select another language. This allows a site visitor to override the primary language resolution method. The drop down will feature English at the top of the list with all other available languages in alphabetical order. There is scope for 'remembering' the visitor's user defined language settings beyond the single visit but this can only be achieved with an 80% success rate. (Recent studies have shown that 20% of web USERS do not accept cookies as a matter of routine).

View Statistics (Optional)

The statistical reporting tool is available to SUPERUSERS only. It allows the latter user group to view details about the kinds of enquiries that have been made. The options for filtering enquiries by product, industry category and individual company or for the whole group of companies are presented as initial choices for the user.

This kind of information could be useful in tracking how visitors are interacting with the on-line application parts of the site. Methods of displaying the information still remain unresolved, as this is an issue that needs to be tackled once other areas of the application are 'signed off'.

Shown below is a rough flow diagram of how any system of this type would work.

In addition, the administration tool is capable of tracking USERS and SUPERUSERS through the system and collecting data from all web 'clicks'. This would mainly concern data relating to which enquires were made by visitors, by product, industry category, country, company etc. The results could be filtered and sorted in a number of prearranged ways. This feature would only be available to SUPERUSERS.

Appendix 1 : Example

Below is an example news page, with numerically indicated feature items.

- Item 1: Encourage site visitors to subscribe to be e-mail notified of new news items in their chosen areas.
- Item 2: Language selector so that the user can over-ride their browser language setting and if available see news articles in their selected language.
- Item 3: Latest news items ticker. This scrolls up the screen. This can be put on the home page.
- Item 4: List of other news articles in that category. In this example those that have a picture are listed first.
- Item 5: Link to a printer friendly version of the news item.
- Item 6: Facility to let the site visitor email the article.

The screenshot shows a news article page with several key features highlighted by numbered callouts:

- 1**: Points to the "Subscribe" button in the newsletter subscription section.
- 2**: Points to the "English" language selector dropdown.
- 3**: Points to the "Expansion joints explained read more..." link.
- 4**: Points to the "Edilon Corkelast@ Rail Systems" article title.
- 5**: Points to the "Email this article" link.
- 6**: Points to the "Printer friendly version" link.

The page content includes:

- Latest News:** A sidebar with links like "New and Refurbished Gaskets read more..." and "Expansion joints explained read more...".
- News Category:** Industry, dated Tue, 16th April 2002 - 10:19.
- Edilon Corkelast@ Rail Systems:** The main article title and a large image of a train.
- Other Recent News:** A sidebar with links like "The Advantage", "IMPACT - LDAR (Leak Detection and Repair) Service", and "Impact action on fugitive emissions".
- Cost Savings:** A section discussing the benefits of an expertly planned and implemented LDAR programme.
- Planned Approach:** A section discussing monitoring and data management as key elements of the approach.

Appendix 2 : PHP and MySQL

We use PHP & MySQL when developing database driven websites. This gives a flexible but solid and reliable system for rapid development, and easy integration into almost any web site.

MySQL is an Open Source, Relational, Database Management System

To add, access, and process data stored in a database, you need a database management system such as MySQL. The SQL stands for 'Structured Query Language.'

A relational database stores data in separate tables rather than putting all the data in one big storeroom. This adds speed and flexibility. The tables are linked by defined relationships, making it possible to combine data from several tables.

Open Source means that it is possible for anyone to obtain and modify their copy of the MySQL software without paying anything. This allows programmers to change the source code to fit their needs. The MySQL software uses the GPL (General Public License), <http://www.gnu.org/licenses>, to define what you may and may not do with the software in different situations.

MySQL Database Server

The MySQL Database Server is fast, reliable, and easy to use. MySQL Server was originally developed to handle much larger databases much faster than it is generally used for on the Internet.

The MySQL Database Software is a client/server system that consists of a multi-threaded SQL server that supports different 'back ends', several different client programs and libraries, administrative tools, and a wide range of programming interfaces (APIs).

Benchmarking the MySQL Database Server

In a recent database benchmark test performed by Ziff Davis Media Inc. (the company behind PC Magazine and eWeek) MySQL came out as the winner. MySQL is presented as having the overall best performance and scalability along with Oracle9i. MySQL also scored at the top end for stability, ease of tuning and connectivity. Considering pricing and ease of use, this further strengthens MySQL as being the database server of choice for value adding, high-performance web sites.

- The databases tested were: DB2 7.2, MS SQL Server 2000, MySQL-Max 4.0.1, Oracle9i 9.0.1.1.1 and Sybase ASE 12.5.0.1.

Full eWeek benchmark test: <http://www.eweek.com/article/0,3658,s=708&a=23115,00.asp>

What is PHP?

PHP is a class based object orientated, general-purpose, scripting language that is especially suited for Web development as it can be embedded into HTML. PHP is used to script the interactions between the website and the database.

PHP vs. ASP

ASP is not a language in itself, it's an acronym for Active Server Pages. The actual language used to program ASP with is Visual Basic Script or JScript. The biggest drawback of ASP is that it is a proprietary system that is natively used only on a Microsoft Internet Information Server (IIS). This limits it's availability to Win32 based servers.

The language and platform combination mean that ASP is commonly reported as slower, less stable and more cumbersome than PHP.

Supporters of ASP correctly point out that since it primarily uses VBScript it is relatively easy to pick up the language if you're already know how to program in Visual Basic. As a good number of programmers first learn Visual Basic they often select ASP ahead of other languages such as PHP which would be more appropriate for the task at hand.

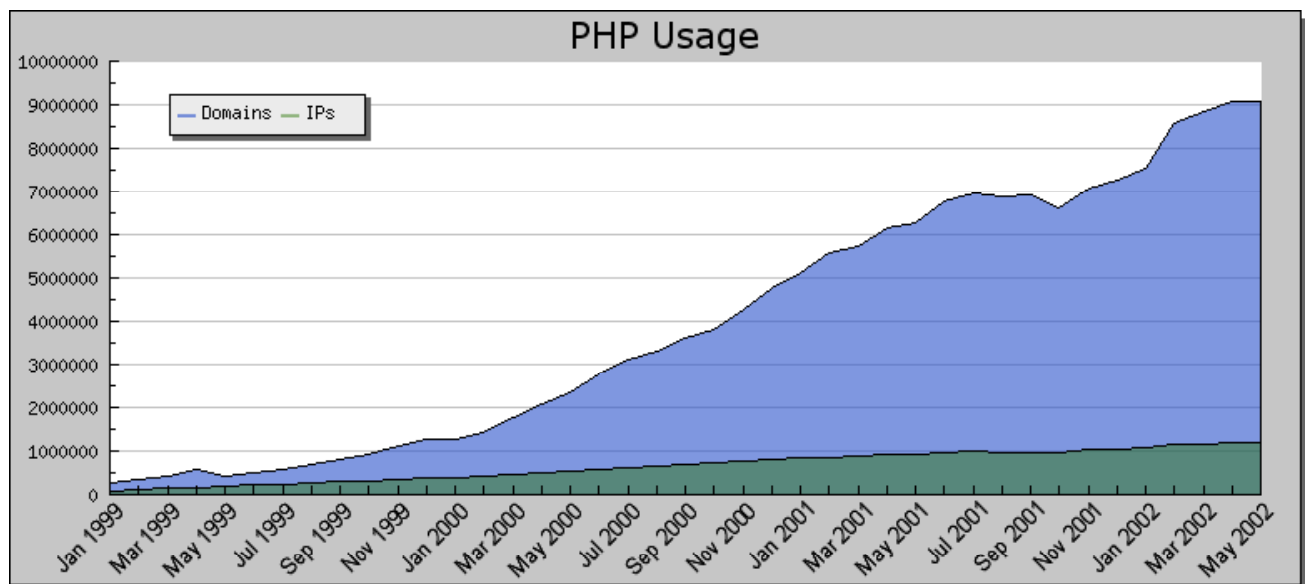
The components built into ASP are not as extensive as for PHP. This often leads to the required purchase of additional components.

PHP vs. Cold Fusion

Against Cold Fusion, PHP is usually faster and more efficient for complex programming tasks. It is a faster environment for creating and testing new ideas. PHP also tends to be more stable and less resource intensive. Cold Fusion has better error handling, database abstraction and date parsing. Cold Fusion has an excellent search engine, although it is argued that a search engine is not something that should be included in a web scripting language. PHP runs on almost every platform there is; Cold Fusion is only available on Win32, Solaris, Linux and HP/UX platforms. Cold Fusion is designed with non-programmers in mind, while PHP is focused on programmers.

PHP vs. Perl

The biggest advantage of PHP over Perl is that PHP was designed for scripting for the web where Perl was designed to do a lot more and can therefore get over complicated. This greater flexibility / complexity of Perl makes it easier to write code that another author / coder has a hard time reading. PHP has a less confusing and stricter format without losing flexibility. PHP is easier to integrate into existing HTML than Perl. PHP has all the main elements of Perl without being as complicated.



PHP popularity graph taken from the Netcraft Survey at <http://www.php.net/usage.php>