Automatic and Groupware Metasearch

Nicolas Esposito

DASSAULT SYSTÈMES – Research and New Technologies
9 quai Marcel Dassault – 92150 SURESNES – FRANCE
Phone +33 (0)1 55 49 80 01 – Fax +33 (0)1 40 99 43 90

The goal of the MetaMAG[1] project is to show how much time and efficiency the users can save on Web searches (or database searches).

MetaMAG is a tool for performing systematic searches without effort. A researcher will be able to survey Web pages about his research subjects; a company, those about its competitors. In a large database context, MetaMAG allows users to be automatically informed, for instance, of the creation of records they are waiting for.

1 Working Principle

MetaMAG, while being in essence a metasearch engine[2], adds two ideas to this concept.

Automatization. MetaMAG runs every night. It searches for results for each request, for instance "mobile agents" on Altavista, Yahoo and Cora. If new results are found, they are distributed via e-mail.

Groupware. The users can create requests or subscribe to existing ones. The subscribers of a request make up a group and they are encouraged by the interface to exchange notes about the request and its results, as in a mailing list.

MetaMAG works as follows:

- check the data directories,

- execute the requests and save the results,

- suppress already encountered results,

- suppress broken links,

- make local copies of pages which are referenced by the new results,

- distribute the new results to subscribers and to the MetaMAG intranet site,

- integrate the new results in the results directory,

- generate a statistic file.

These statistic files allow us to present the results of the project. MetaMAG has been used by our research and strategy department for several months: about 20 users and 30 requests on 4 search engines.

2 Results

Time. The users are not compelled to regularly use a search engine for the same request. They don't waste time with broken links or pages they have already found. They can have access to local copies very quickly. And they can react instantly by exchanging ideas with the group.

Efficiency. The Web moves very fast. With the first ten answers from 4 search engines, MetaMAG gives about 1.8 new valid answers every day for each request. By trying each request every day, MetaMAG is a very hard worker. It can't miss the arrival of a page in a search engine.

Implementation. The user interface was written in Perl on an Apache Web server and the core of the project in WebL. WebL[3] is a powerful scripting language specialized in automatic Web related tasks.

3 Enhancement

New modules can easily be added to MetaMAG and every open software or search engine can be linked to MetaMAG by writing a driver. Such a link was performed with a CAD program and requests were created that inform their groups of the creation of a particular model. MetaMAG improves the efficiency of our digital world.

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[1] In French, *métamoteur automatique de groupe*; in English, automatic and groupware metasearch engine.
[2] A search engine that delegates to other search engines.
[3] http://www.research.digital/SRC/WebL/