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## Red7 Knowledgebase

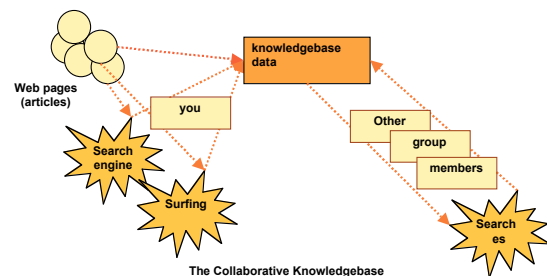
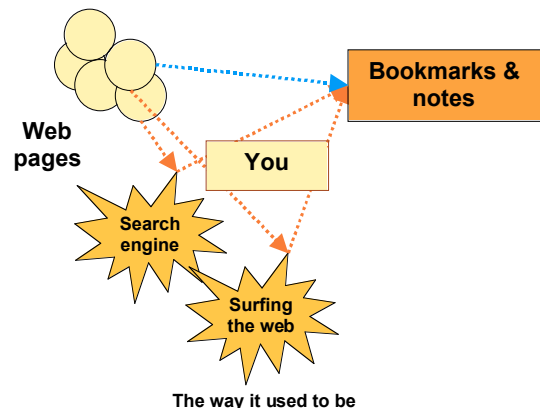
**Red7 Knowledgebase** is a tool intended for use by an individual or a small group of people who are researching topics using web resources. The resources must be available on the web, may require passwords, and may be combined with private resources and notes. Similarly, the knowledgebase is an online application and you must be connected to the Internet to use it. The knowledgebase operates like a search engine in many ways, but has some important collaborative aspects that public search engines don't provide.

### Building a Knowledgebase

Building a knowledgebase is a collaborative effort, and it requires a central server. *So, to use the Red7 knowledgebase, you must be online and connected to our server thru a web browser.* This connection may be either on the public Internet or a private network. We'll refer to these web pages as *articles*. And each article is identified by a *URL* (uniform resource locator).

Simple as it may sound, the knowledgebase engine was originally developed as a replacement for web browser bookmarks. When I'm looking for background information on the web, I use a search engine, and I used to save the URLs I found, and those I received from fellow researchers and email lists. I saved these as *bookmarks* (or *favorites*) in a web browser. But, these methods broke down when I reached a couple of hundred bookmarks. The problem was *organization*. I began to lose track of where the right bookmarks were stored. Bookmark organizers helped, since I could group the bookmarks together under topics, but ultimately the system failed if I hadn't made useful categories. And, with groups of people researching a topic, it was too difficult to coordinate the grouping activities.

The Red7 knowledgebase helps organize these references. And it will help a workgroup deal much more effectively with the hundreds or thousands of references a workgroup can quickly unearth when researching almost any serious topic. Instead of relying upon bookmarks and other manual methods of recording and classifying references, the knowledgebase will itself hold the references, and will permit the workgroup to search those references and group them more effectively. What's more, since the knowledgebase indexes all of the significant words in each article, researchers can usually find more connections than they would if they used "manual" indexing techniques.



*Building and using a knowledgebase is a process.* The knowledgebase is not ready to use until the workgroup has created it and built a critical mass of articles.

There are three major steps to making effective use of a knowledgebase. First, the articles must be found and *indexed*. Group members can then *search* the knowledgebase to retrieve useful articles. And finally, the workgroup can refine and focus the categorization of the articles through a collaborative *grouping* operation.

## Installing the Tools

*Before you can install and use a knowledgebase, you must register with Red7 and receive a name and password.* The name and password connect you to one specific knowledgebase, which is assigned at the time of registration. More databases can be added later on.

Two single-click javascript shortcuts are provided which make the steps of *adding* new articles and *searching* into very simple operations. These shortcuts can be added to your browser toolbar (MSIE or Navigator) and will then be available at all times while you're using your web browser. A single click activates either operation.

To install the shortcuts, go to <http://www.red7.com/base> which is the knowledgebase index page. Starting there, find the *single-click shortcuts* page and then *drag* both of them from the web page to the browser toolbar.

(Don't *click* the links, *drag* them.) Drag the shortcuts which are specified for the browser you'll be using. For MSIE, drag to the "Links:" toolbar and for Navigator drag to the "Favorites:" toolbar. If

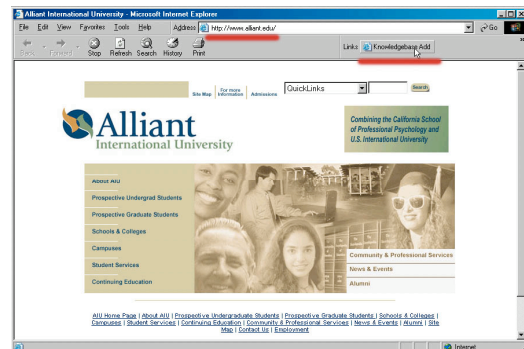


the Links toolbar is not visible, select Toolbars from the View menu and toggle the toolbar on. The illustration shows how it will look in MSIE when the link has been added – Navigator will look different.

More detailed instructions can be found on the page where these links appear. Note that you initially *drag* these two links to the toolbar and from then on you only need to *click* the *Add* or the *Search* link to use each tool. The links are javascript, and your browser may warn you that you're about to do something "dangerous" by sending information from your computer to the web – it is correct that you're going to send information – this is how the information on what URL you want to add gets to the Red 7 server!

## Step One — Adding and Indexing

Once you've added the single-click shortcuts to your browser's toolbar, you can start building and using your knowledgebase. Browse or search as you normally would on the world wide web. When you locate a web page you want to add to the knowledgebase, click the "Knowledgebase Add" link on the toolbar. A dialog box will pop, asking what *tags* you want to assign to the article or page. Tags are words or short phrases which help you classify your articles. They are categorizations of articles. In tagging, for example, a web page containing information on the valuation of intellectual capital during a



merger might be tagged with the terms "intellectual capital" and "merger." Tags can contain multiple words, like "knowledge engineering" or "terms of service" and tag phrases should be separated by commas. You could type "intellectual capital, merger" to classify a single article under both "intellectual capital" and "merger." Or another web page with information on high-tech mergers might be tagged with "technology" and "merger." Care should be taken to be

consistent with tag phrases – for instance, use “merger” all the time rather than using the variations “merger” “mergers” and “merging.”

The goal of building a knowledgebase is not just to accumulate information on web articles, but to add intelligence while categorizing those articles, so that your workgroup can profitably search thru and utilize the web surfing results of all group members. To this end, you should plan your strategy, and particularly your tag phrases, in advance. Determine the sources you might use to discover articles. Make a preliminary list of categories and tags you intend to use. Use those tag phrases (exactly) whenever possible, but add tags when you find that you need to.

You can also add your own private notes to the knowledgebase. Go to the knowledgebase index page <http://www.red7.com/base> and click the *index/add* link. On the “1. Index” page you can add articles by typing or pasting a URL with tags, *and in addition you can paste in plain text notes to be uploaded.* These notes are uploaded and stored on the knowledgebase server where they can be searched and retrieved as part of the knowledgebase.

## Step Two – Searching

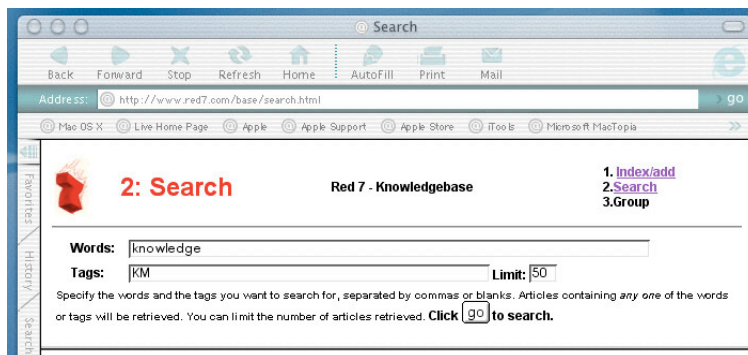
When you index an article into the knowledgebase, the significant words in the article are catalogued by the knowledgebase’s search engine. Once you’ve built up a sufficient volume of articles it becomes useful to search the knowledgebase. When you search for articles, you do this by specifying the important *words* that you want to find – the index will be searched and all articles containing those words will be retrieved. You can also search based on tag phrases or words.

1. [Index/add](#)
2. [Search](#)
3. [Group](#)

The easiest way to search is to click the single-click shortcut you added to your browser’s toolbar. A dialog window will pop up, asking what terms you want to search for. You type the search word or words, then press ENTER to search. This will perform a quick search, looking for articles containing the words you specify, and it will add in any articles whose tag values also match the search terms.

For example, to search for articles containing “knowledge” and “management” you’d type “knowledge management” or “knowledge and management.” To search for articles containing either “knowledge” or “information” you’d type “knowledge or information.”

A more complex search capability is available at the Red7 knowledgebase web site. If you’re going to make frequent use of this page, you might keep it open in a separate browser window, using a different browser window for your web surfing and other searching.

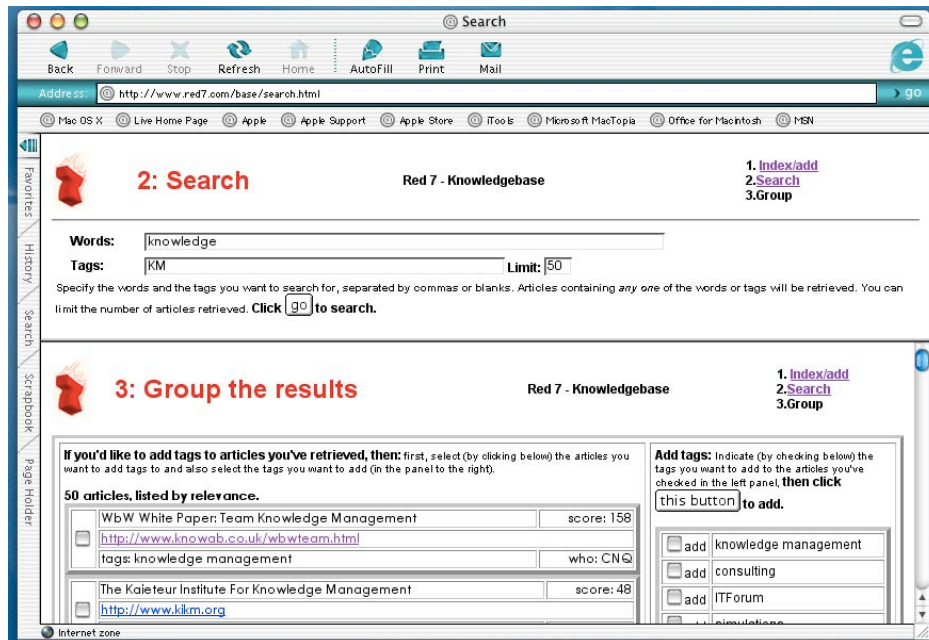


You can use the words “and” and “or” to join words to form sophisticated search specifications. If you want to search for a combination of words – that is, all the words must be found in an article for it to be retrieved – put “and” between the words. Search for “knowledge and management” or “computational and linguistics.” If you want articles containing any one word, put “or” between them by searching for “linguistics or language” or “computing or computational.” You can also form Boolean expressions such as “(software or publishing) and Microsoft” using the words you want to search for and parentheses to specify the

The articles that have been retrieved are presented in *relevance* order – relevance is determined by the number of times your search words and tags appear in the articles in the database. A “hit” on a tag word is given a much higher value than a hit on a word in the body of an article. The search window has two frames – the top one where you specify the search and the bottom one where the results are shown (see the illustration below).

The left panel (or frame) in the results window (it says “3: Group the results” below) lists the matching articles, in relevance order. The URL for each article is active and you can click to open the article in a separate window. There’s a checkbox to the left of each article for the collaborative grouping step. In the right panel is a list of all of the tags in all of the retrieved articles. This includes all tags from all of the retrieved articles, including tags you didn’t specify in the search. In the example illustrated below, the first article has a score of 158, which most likely means that the word “knowledge” appears 158 times in the body of the article. This is unusually high, but it illustrates very well how the content of an article determines its relevance.

You can use the *search* function as many times as you like, retrieving knowledgebase articles. If private notes have been uploaded to the knowledgebase, these notes will also appear among the retrieved articles. Some knowledgebase users may find that indexing and searching are the only knowledgebase functions they need – they can stop at this point.



### Step Three – Grouping the Articles and Collaborative Tagging

If, like me, you find that your first choice of tags isn’t always the best, or that through serendipity during searches you would like to add a new tag to a group of articles, the collaborative tagging step will help you to better focus the categorization of articles in the knowledgebase.

The example (above) is a good one because the search was performed by looking for a tag value of “KM” (for knowledge management) which this researcher had applied to a number of articles. However, it’s clear that other researchers in the group used the written-out term “knowledge management” instead of the abbreviation “KM”. To apply the tag “KM” to the retrieved articles, we would click the check boxes on the desired articles (in the left panel), find and click the tag “KM” in the right panel, then click the button labeled “this button” to add the tag “KM” to the selected articles.

If you’d like to add a tag to the retrieved articles and it doesn’t appear in the tag list in the right panel, there’s a box at the bottom of the right panel (not visible in the illustration above) where you can enter a new tag phrase or word to be applied to all of the checked articles from the left panel.

This collaborative tagging process may be performed by all group members, or it may be carried out as a cleanup function by a member of the group who has been assigned the task. This is up to the group to determine and to enforce.

We don't currently have a mechanism for deleting tags from articles – this will follow. An administrator can also *inactivate* articles, which excludes them from lists and searches. And an administrator can combine tags, simplifying the tag structure for your knowledgebase.

### Bookmark files

The Red7 knowledgebase server can import Netscape (and MSIE-exported) bookmark files and add all of the bookmarked URLs to a knowledgebase. This function must be performed by a system administrator. If your bookmark file contains folders and subfolders (which contain sets of URLs) the folder names will be picked up and used to tag all of the enclosed articles.

A knowledgebase administrator can create a Netscape bookmark file from a knowledgebase, which means that "departing" workgroup members can have something to take with them.

### Summary

The knowledgebase is a repository for URLs pointing to articles on the world wide web. The first step in building a knowledgebase is to index the articles which are to be included. Each article is scanned when it is *indexed* and significant words are catalogued. Articles may also be tagged – a process which associates key words or phrases with each article. The group can then search the knowledgebase, retrieving relevant articles for further analysis and study. Retrieved article can have new tags added, further focusing how they're classified within the knowledgebase.

