

# ***Hulbee DataCloud private edition***

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## **Contents**

1	Introduction .....	1
2	Common technology description.....	2
2.1	What is DataCloud.....	2
2.2	Thesaurus .....	2
3	Components and their interactions .....	3
4	Server part.....	6
4.1	Technical requirements .....	6
4.2	Limitations .....	6
4.3	Description.....	6
5	DataCloud portal .....	6
5.1	Portal basic features .....	6
5.2	User's profile .....	6
5.3	Managing clouds.....	7
5.3.1	Create/Edit DataCloud.....	8
5.3.2	DataCloud logics .....	9
5.4	Integration .....	9
6	Client part .....	9
7	Licensing Terms and Conditions for the Freeware Hulbee DataCloud.....	10
7.1	Formation of Contract.....	10
7.2	Right of Cancellation .....	10
7.3	Copying rights.....	11
7.4	Multiple use and network use .....	11
7.5	Passing On of the Software.....	11
7.6	Decompilation and Program Modifications.....	11
7.7	Claims based on Defects .....	11
7.8	Liability.....	11
7.9	Miscellaneous .....	12
7.10	Support .....	12
	Appendix A. Step by step integration.....	12
	Appendix B. "GET" and "POST" submission methods .....	26

## **1 Introduction**

This document contains a description of the Hulbee DataCloud product private edition.

Hulbee DataCloud private edition is the most universal version of a Hulbee DataCloud solution. It is designed for widespread use in a variety of public sites.

This document describes

- the common **Data cloud private edition** project scheme (hereinafter referred **Data cloud**),
- modules to be added to the web site,
- information processing design,
- directions of data flows.

The document allows technicians to understand the peculiarities of the implementation and estimate the upcoming work. It also described some formats, databases, etc.

## 2 Common technology description

### 2.1 What is DataCloud

In the context of the **Hulbee DataCloud private edition** project, the DataCloud is a visual builder of the queries to the usual search engine (standard full-text search). Like «adviser» recently appeared in the search engines (Google suggest, etc.), it allows the user to form a query, which gives more relevant answers. In contrast to the suggestions allowing to add some continuation to the query, the DataCloud allows to make associative jump to related topics. Topics and terms relations for the site is calculated individually on the basis of own intelligent algorithm.



Figure 1. Sample of the DataCloud.

The main GUI elements used in query building are the input query field, the DataCloud (a visual builder) and the result of a request (search results). The DataCloud is constructed with the help of **Hulbee DataCloud server**. The other page elements are built by customer's site, hereinafter referred to as CMS. The location of these areas and their design can change from project to project.

First, the map shows the terms from search query (no matter whether the user enters them manually or clicking on the DataCloud). Click on the selected word will remove it from the current query.

There are the associated (in the site context) terms around the word(s) of the query. They are not contained into the query, but can be added to the query by clicking on them. In this case search query, DataCloud, and the query's results will be refreshed.

The second association level (related to first level) words can be showed. These words are showed when user click on the first level word. They are hired by default for preventing DataCloud's overloading. DataCloud have not changed, until user select or deselect some words.

What words will be selected as the associated to the query's words and their coordinates is defined of the visualization algorithm of Hulbee AG.

If the search string does not contain any word (empty), the most informative site terms will be shown to the user.

### 2.2 Thesaurus

Automatically generated thesaurus is used as basis for the construction of DataCloud.

A small annotation. Thesaurus (from the Greek. θησαυρός - Treasure) in modern linguistics - a special kind of dictionary of general or special lexicon. Thesaurus identifies the semantic

relationship (synonyms, antonyms, paronyms, hyponyms, hyperonyms, etc.) between lexical units. Thus thesauruses in electronic form are one of the most effective tools of individual subject areas description.

Typically thesauruses are manually built for each subject area. This is expensive (time and money) and requires professionals with highly developed skills to create and maintain thesaurus up to date.

Hulbee company has created technology that allows to build thesauruses automatically from the site content. DataCloud private edition using dynamic build thesaurus.

### 3 Components and their interactions

The following is a diagram showing the main parts of the project, and their interactions.

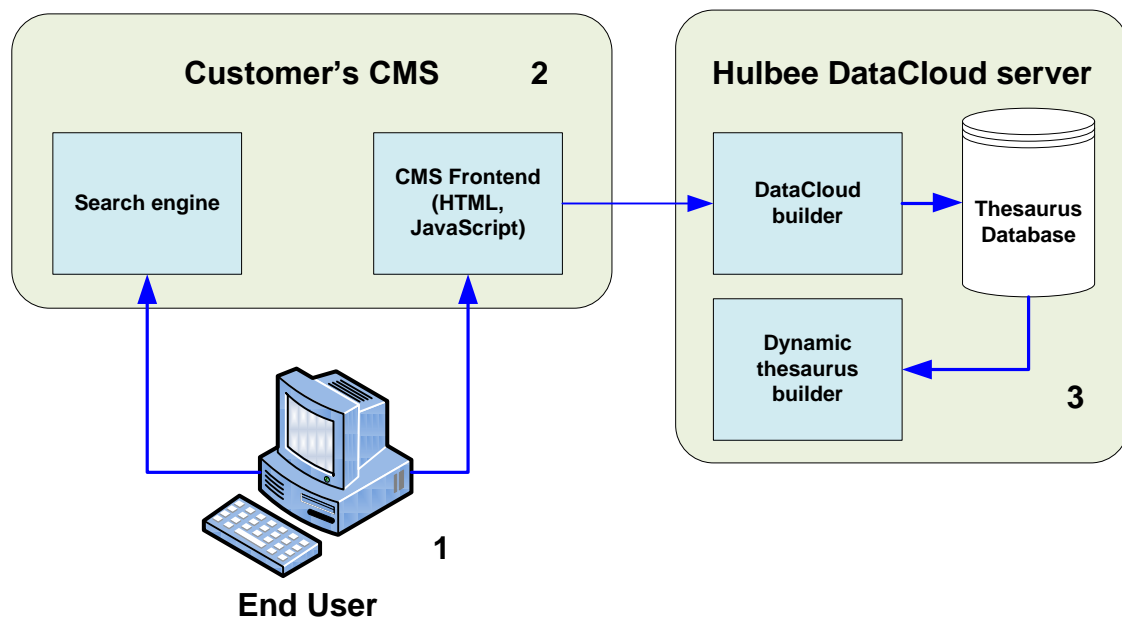


Figure 2. Main components and calling sequence.

The complex includes the following parts and external components:

1. The end-user. As usually, he communicates with the customer site through a web browser installed on user's computer.
2. Customer's CMS. It can be placed on a single computer or be divided into several parts. The project can be logically divided in two main parts that interact with the Hulbee DataCloud builder. The first is a Front End which forms the pages HTML-code and the second is Search Engine. The code which is responsible for DataCloud displaying is added to the pages that present the search results. By customer request a similar code can be added to the main pages template. In this case, each page will show the so-called «initial map», which allows to navigate easily through the site main themes. A thesaurus is built on the basis of publically available site content, which any outside user could see in browser. In other words DataCloud does not use any internal CMS data.
3. Hulbee DataCloud Server. It consists of three main components - DataCloud builder, Dynamic thesaurus builder and Thesaurus. DataCloud Builder is a program (algorithm) that builds maps based on a user's query and thesaurus. Private edition build thesaurus dynamically, for every user's query.

The DataCloud Builder is linked with the site search system by the address field. Most search engines are using it to transfer the query entered by the user. The diagram below shows the user actions and the path that query passes when normal query string is used.

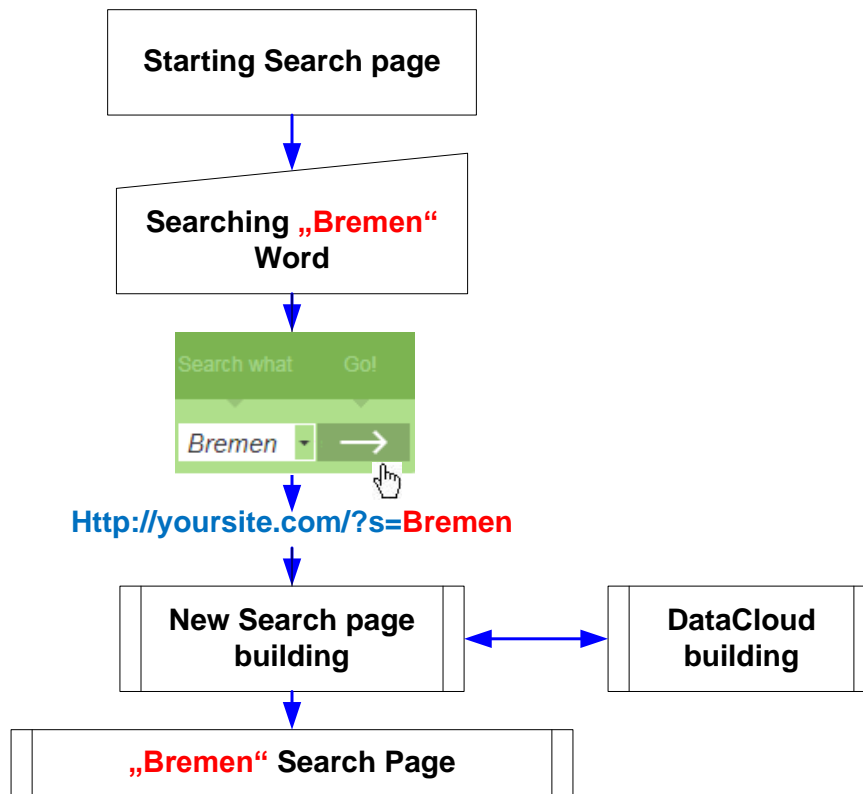


Figure 3. End-user search pages with the Bremen word. Search field used.

We'll start with a search start page. In this case, the search string is empty, and DataCloud shows the so-called initial map. Let us assume that the user wants to find pages with the word "Bremen". To do this he prints the word in normal query string, then he clicks on the «Search» button.

In response to this, the user's browser forms the query string, in which the word is coded and sends it to the server. The server creates a page with the search results, part of which is the area designated for DataCloud. Search results and DataCloud are built in accordance with the query string which is transmitted as a parameter.

In this case, DataCloud is a support tool that helps to better disclose the subject area. Now let's review the sequence of user actions and the query path, when DataCloud is used to enter a word.

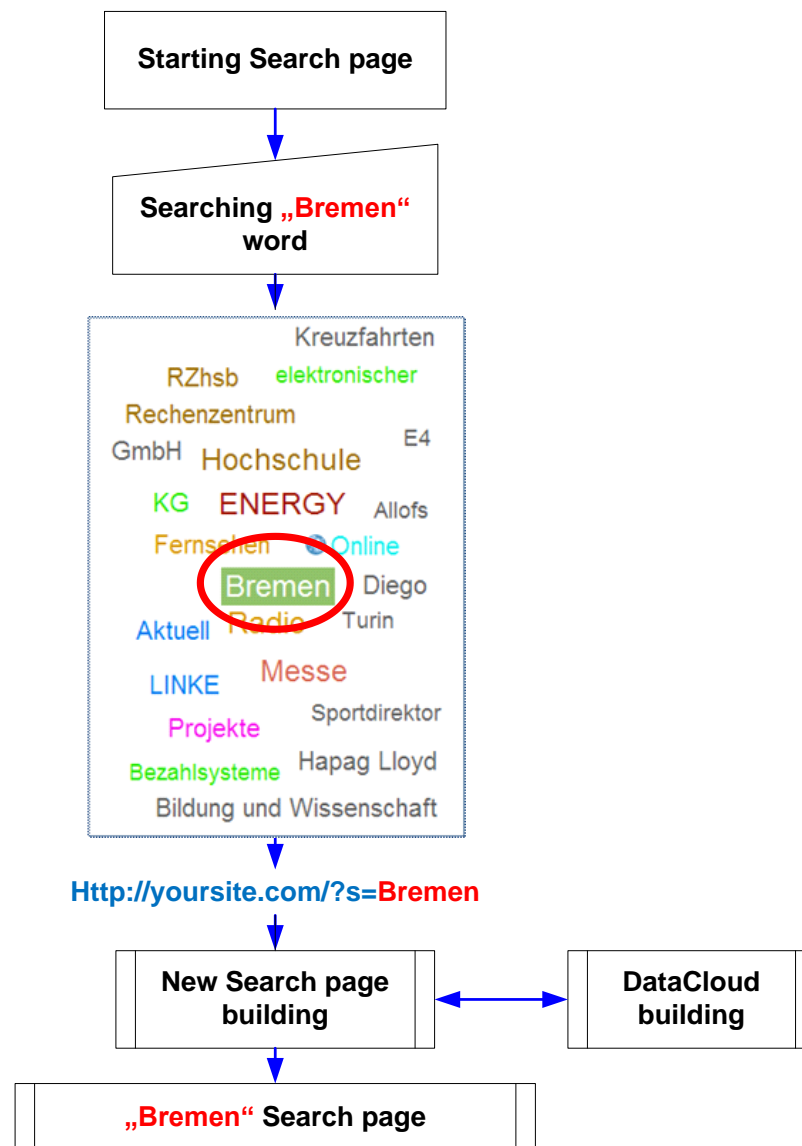


Figure 4. End-user search pages with the Bremen word. DataCloud used.

Again start with the search start page. The search string is empty, and DataCloud shows the initial map. User found that the DataCloud has the word "Bremen", which interested him. He wants to find pages that contain this word. To do this, he «clicks» on the word.

When DataCloud is visualized, each of its elements actually contains a new query link. Therefore, immediately after clicking on an item, the user's browser forms the query string, in which the word is coded and sends it to the server. The server creates a page with the search results, part of which is the area designated for DataCloud. Search results and DataCloud are built in accordance with the query string which is transmitted as a parameter. If the search string already has the word(s), a new word is added to the query. If the word that is already in a query is clicked, the new search query without the word will be executed.

In this case DataCloud disclosed in full, because it allows to use the human brain potential for visual analysis. Also, this way of writing the words is a quicker and easier (one click). Finally the most important - hidden information relations (for the site information) are revealed and used, which is possible thanks to a specially constructed thesaurus.

## 4 Server part

### 4.1 Technical requirements

A site with GET-based search engine is required to install Hulbee DataCloud private edition. It is the main condition. To know about how to change submission method to "GET" see Appendix B. "GET" and "POST" submission methods.

### 4.2 Limitations

Current version of DataCloud server has one important limitation; it allows to integrate only one DataCloud in a customer site.

### 4.3 Description

DataCloud private edition use the web-based DataCloud server. So, customer need not to install DataCloud parts in own server.

When the end user's browser JavaScript support is enabled complex runs in the standard mode. Hulbee DataCloud server runs as follows:

- ✓ JavaScript that runs on client side sends DataCloud building query. Query contains words that user input in query string. These could be typed in query string or added with DataCloud.
- ✓ HTTP-server receives DataCloud building query.
- ✓ Through PHP-interpreter HTTP-server runs program that calculates parameters for DataCloud building.
- ✓ In the process PHP-scripts call the Dynamic Thesaurus Builder (DTB). DTB use the indexed content of site for creating the thesaurus for interested words.
- ✓ Once the query processing is finished a response is formed. The response contains all data necessary for the DataCloud visualization in the XML-syntax.
- ✓ Server response is visualized by JavaScript which sent the query. As a result DataCloud is displayed.

## 5 DataCloud portal

### 5.1 Portal basic features

DataCloud portal created to supporting site's owners, which are use DataCloud on their site. To participate in the DataCloud project, customer should complete the registration and authentication procedures at the portal.

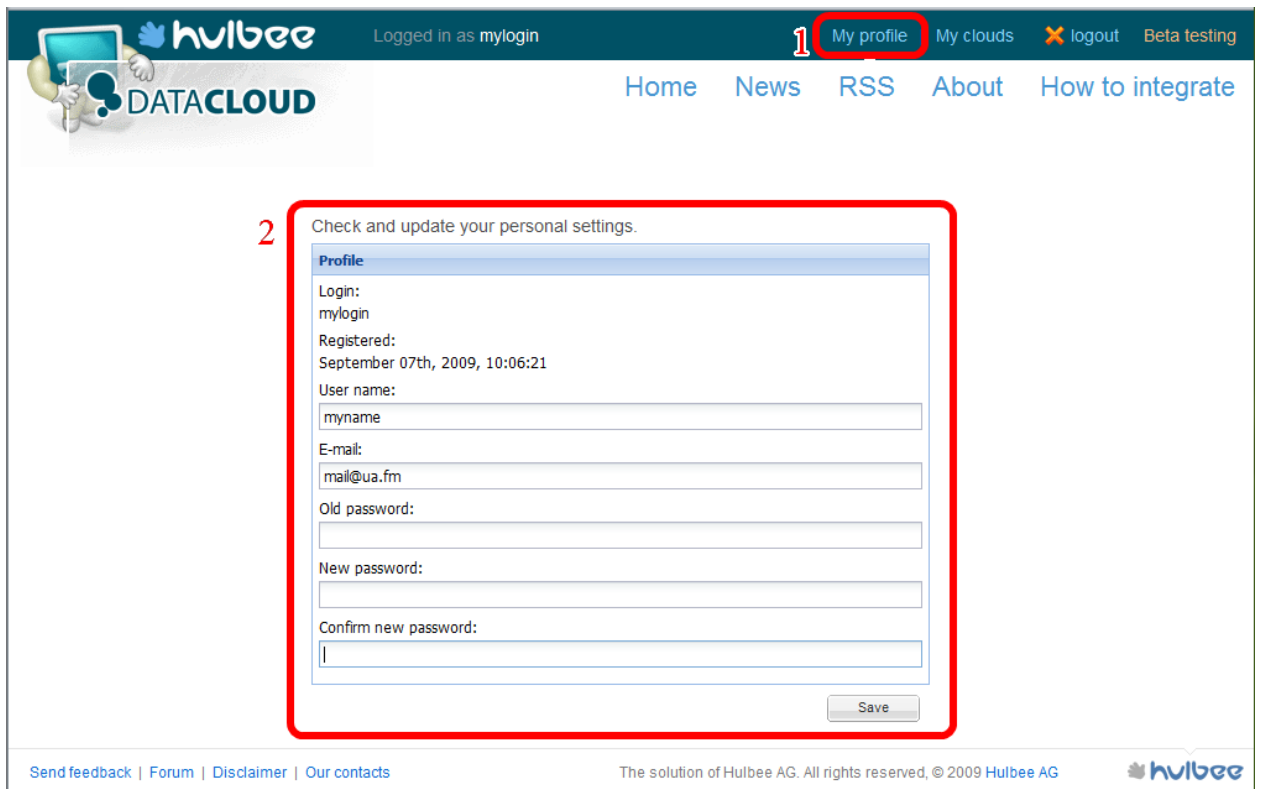
If the authentication password has been lost, the customer can generate a new password or re-register.

To keep customers informed about news and events the site has the news page and RSS feed.

If necessary, feedback and comments can be submitted using the contact form. Also it is possible to ask support service a question in an open public forum.

### 5.2 User's profile

Authorized user can make changes to his user profile in **My profile** section (fig. 5).



1 – Link to **My profile** section; 2 – **Profile** settings form.

Figure 5. **My profile** section.

### 5.3 **Managing clouds**

**My clouds** section (fig. 6) contains options that allow authorized user to generate and customize the interactive navigation maps provided by Hulbee DataCloud technology for their own websites.

The screenshot shows the Hulbee DataCloud user interface. At the top, the user is logged in as 'mylogin' and the 'My clouds' link is highlighted with a red box and the number 1. On the left, a sidebar contains 'New DataCloud' and 'Hulbee map', with the latter highlighted by a red box and the number 2. The main content area, outlined with a red box and the number 3, displays the details for a cloud named 'Hulbee map' with domain 'hulbee.com'. It includes a preview of the cloud's content, a settings panel with fields for URL, language, size, and status, and a calendar showing creation and start dates. A status legend at the bottom indicates the cloud's current status as 'Trial'.

1 – Link to **My clouds** section; 2 – **Clouds** list; 3 – **Options** panel.

Figure 6. **My clouds** section.

For the newly registered user **Clouds** list (fig. 6, marker 2) contains only “Hulbee Map” cloud (for testing purposes). When **My clouds** section is entered the first cloud (from the **Clouds** list) is selected by default. **Options** panel (fig. 6, marker 3) contains tabs that allow to edit, to preview or to delete selected cloud, to receive widget code, to make payments and other options.

### 5.3.1 Create/Edit DataCloud

When creating a DataCloud the following information is required:

- **Cloud name** – internal name used to identify cloud in **Clouds** list (fig. 6, marker 2);
- **Site URL** – the URL of site to create cloud for;
- **Cloud language** – the language of the cloud to create.

If some field is filled with invalid content the user will be notified by hint. Only if all information is inputted correctly the changes will be saved and map will be built (or rebuilt in case of editing).

To receive DataCloud widget integration code the Query pattern should be defined:

- **Query pattern** is the URL that is given by your site search engine when the search query is TEST. To receive the Query pattern for your site, use this advice: input TEST word as a query in your site search string and run a search. By doing so, you make your browser jump to a new URL. Copy this URL to the clipboard - that will be the Query pattern for your site.

For example, let us assume we build a cloud for the Hulbee.com site, then the Query pattern field should be filled with the next value:

<http://hulbee.com/index.php?query=TEST&search=web>

A simple check: replace the TEST word with any other, and then use received link in browser. If successful, your browser should display a Hulbee.com search on word you're inputted.

To modify DataCloud contents the following items may be edited:

- **Initial keywords** - list of keywords for the initial cloud. If some important words do not appear on your initial cloud, just add them to the **Initial keywords** list.
- **Stop words** - if there are some words that should be never displayed on cloud, simply add them to the **Stop words** list.

The process of DataCloud creation and integration described in the Appendix A.

### 5.3.2 DataCloud logics

When integrating the Hulbee data cloud search widget user receives next features at the same time:

- Tag cloud of the whole site;
- Visual search.

When a word on the cloud is clicked it run a site search. When another word on the cloud is clicked the search query is supplemented by that word and a new site search starts. If a word marked with a cross is clicked, it will be removed from the query and the search will be started for modified query.

At this time cloud will present only words strongly associated with search terms. This allows the user to search with no idea of what he is looking for (analogy with the Suggest service can be drawn).

## 5.4 Integration

Integrating of Hulbee data cloud search widget to the site is very simple. You should make following steps for inserting the search widget into your site (Detailed instructions are placed in Appendix A.):

- ✓ To get account on Hulbee DataCloud portal.
- ✓ Further, it is required to create DataCloud.
- ✓ After that the widget HTML code should be received and placed into your HTML page.

That's all. Of course, there may be a question - but how does it work? How the widget does know the user's search request? The mechanism is simple enough. Code, which is placed on the page, is a JavaScript. This script examines the parameters of the page. If there is a parameter which is corresponded for the search string on your site (it is entered in the user's cabinet), the DataCloud constructed in accordance with user requests. If the parameters of the current page are not corresponding to the search page, the user can see default DataCloud. Thus, there is no need for additional mechanisms for the data transfer – all need info is already exists in the parameters with which the page is loaded. It is necessary only to enter proper etalon Query pattern for the word TEST when receiving DataCloud HTML code.

## 6 Client part

For client-part to work it is sufficient to have one of modern browsers on the end-user side. Stable operation is guarantee when using the following browsers:

- ✓ Internet Explorer 6, 7, 8
- ✓ FireFox 3.x
- ✓ Opera
- ✓ Safari

✓ Chrome

Software can operate with enabled JavaScript. No additional plug-ins (Silverlight, Flash-Player, Java SE) are required.

## **7 Licensing Terms and Conditions for the Freeware Hulbee DataCloud**

### **7.1 Formation of Contract**

The Hulbee Data Cloud Freeware – hereinafter “Software” – is available for you to download. Clicking on Hulbee Data Cloud enables you to download the Software. You may only download and install the Software if you have expressly consented to these Licensing Terms and Conditions. The same terms and conditions will apply if you receive the Software by delivery instead of by download.

### **7.2 Right of Cancellation**

7.2.1. If you are not obtaining the Software for your commercial or self-employed activity, you have a right of cancellation. Within the cancellation period you can cancel your acceptance of the contract, without giving any reasons, either in written form (e.g. letter, fax or e-mail) or by returning a supplied data carrier with the relevant material. The period will commence no earlier than on receipt of this instruction and is in principle two weeks. The time limit will be deemed met if the notice of cancellation or the data carrier with the relevant material is dispatched in time. However, the right of cancellation in the case of Software that is made available for downloading will expire immediately on commencement of the downloading of the Software.

Notice of cancellation must be sent to:

Fa. Hulbee AG  
Hauptstr. 137 E  
CH-8274 Tägerwilen  
Tel: 0041 71 6300892  
Fax: 0041 71 6331028  
e-mail: info@hulbee.com

7.2.2. In the case of effective cancellation, performances received on both sides shall be returned and any benefits obtained shall be surrendered. If the received performance cannot be returned in full or in part or can only be returned in a deteriorated state, equivalent compensation must be paid where appropriate. This will not apply if the deterioration is due solely to inspection, such as would have been possible in a shop, for instance. You may otherwise avoid the duty to pay compensation by not using the Software as your property and by refraining from any action that diminishes its value. Data carriers capable of shipping by parcel post are to be returned at our risk. Return will be at no expense to you. Software must be deleted on all data carriers to which it was copied.

### **7.3 Copying rights**

You may copy the software or have it copied if it is necessary to copy the software in order to be able to use it correctly. In addition you may copy it for backup purposes. No other copies may be made.

### **7.4 Multiple use and network use**

You may use the software on every one of the servers available to you and also have multiple simultaneous access to it within the company on these servers in order to use it correctly (company licence). Third parties who may also use the software on your company's servers may also access it. No use beyond this shall be the permitted.

### **7.5 Passing On of the Software**

You may donate the Software including any documents in your possession permanently to third parties provided that the acquiring third party declares to you also its consent to the continued validity of these Terms and Conditions.

You must hand over to the new user all program copies including any backup copies that may exist or destroy the copies not handed over. Passing on will result in your right to use the Software expiring. You may not transfer the Software to third parties if there are grounds to suspect that the third party will breach the terms and conditions, in particular by unauthorised duplication.

### **7.6 Decompilation and Program Modifications**

- 7.6.1. The reverse translation of a transferred program code to other code forms (decompilation) and other forms of reverse capture of the various production stages of the Software (reverse engineering), including a program modification, are in principle prohibited unless otherwise dictated by mandatory provisions of law.
- 7.6.2. The removal of a copy protection or similar protection mechanisms is only permitted if this protection mechanism impairs or prevents the trouble-free use of the program.
- 7.6.3. If the acts mentioned under No. 1 are performed on commercial grounds, they shall only be permitted if they are indispensable to the creation, maintenance or functioning of an independently created and interoperable program and the necessary relevant information has not yet been published or is otherwise accessible, for instance by enquiry from the manufacturer.
- 7.6.4. Copyright notices, serial numbers and other elements enabling identification of the program must not be removed or modified.

### **7.7 Claims based on Defects**

Liability for material defects of freeware is limited because of the underlying legislation governing gifts and donations, so that liability for material defects and deficiencies in title, in particular for the correctness, absence of errors, completeness and usability of the information, is precluded unless the defect was maliciously not disclosed.

### **7.8 Liability**

All liability for losses arising through use of the Software is precluded. This shall not apply if liability is mandatory due to intent or gross negligence or due to loss of life, physical injury or damage to health. This does not affect liability under product liability laws [Produkthaftungsgesetz].

Liability for loss of data is limited to the typical costs of recovery that would be incurred for the creation of backup copies at regular intervals commensurate with the risk.

Our employees and other vicarious agents shall likewise be liable personally only under the provisions of this liability clause.

## **7.9 Miscellaneous**

- 7.9.1. Amendments and additions to these Terms and Conditions must be confirmed in writing.
- 7.9.2. The place of performance is Tägerwilen / Switzerland.
- 7.9.3. The Licensing Terms and Conditions and the contractual relationship shall be governed by Swiss law (Thurgau canton) to the exclusion of the UN Sales Convention (CISG).
- 7.9.4. Kreuzlingen/ Switzerland shall be the agreed place of jurisdiction for commercial customers and legal persons under public law.
- 7.9.5. Should individual provisions be ineffective or invalid, this shall not affect the effectiveness of the remaining provisions. Partial invalidity shall not render the entire contract invalid.

## **7.10 Support**

Please visit us: <http://www.hulbee.com> to get some help.

## **Appendix A. Step by step integration**

Integration of Hulbee DataCloud to an existing site with built-in search engine is very simple.

To do so you should generate the DataCloud widget HTML code and paste it into your page.

For example let us see how the Hulbee DataCloud is integrated in the Wordpress (well-known free blog engine).

1. Let us assume next:

- You have your own website and you are the administrator of this site.
- Your site is located on a public web server and is available by the domain name.
- The domain name of your site is mypersonalblog.com

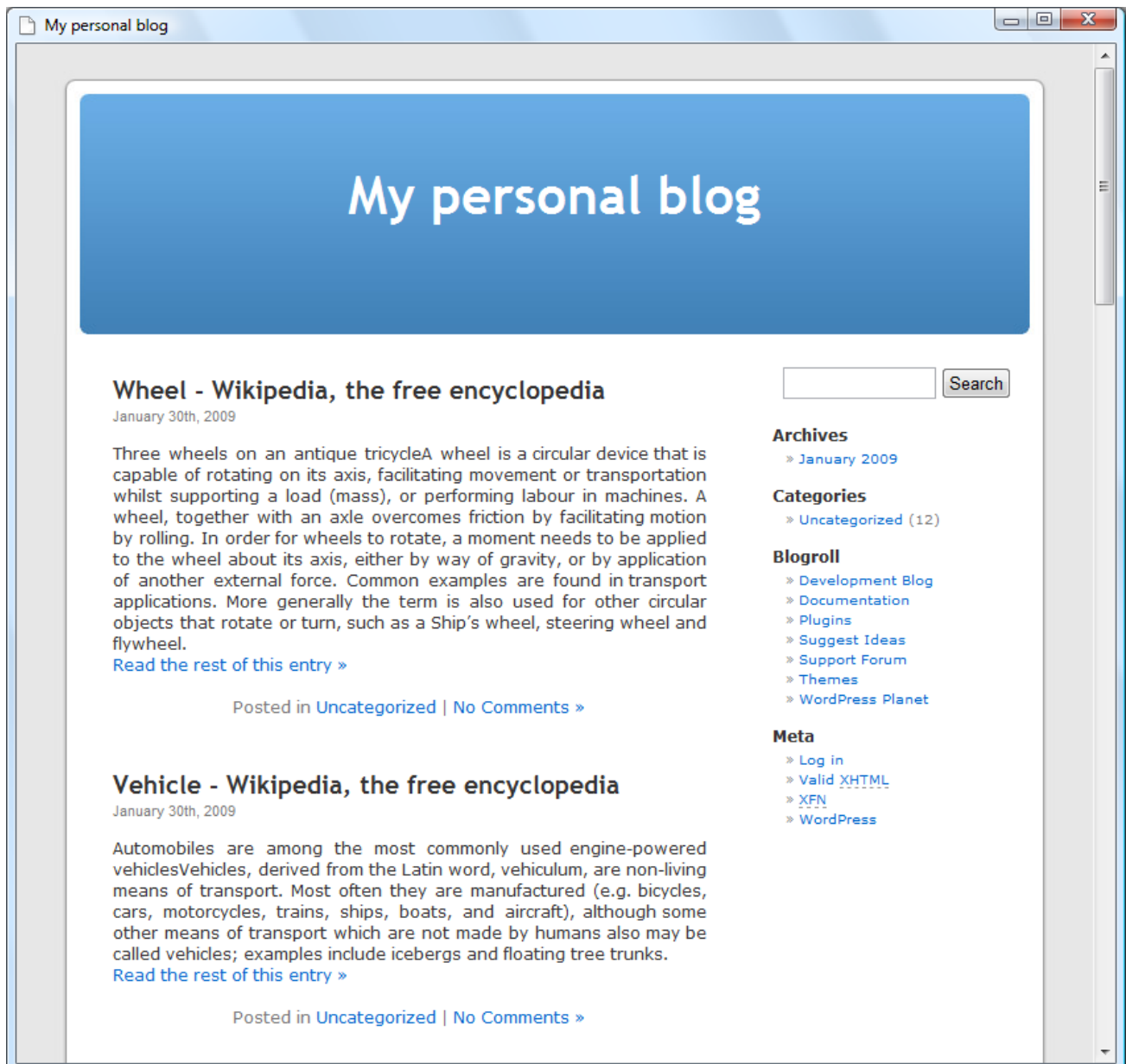
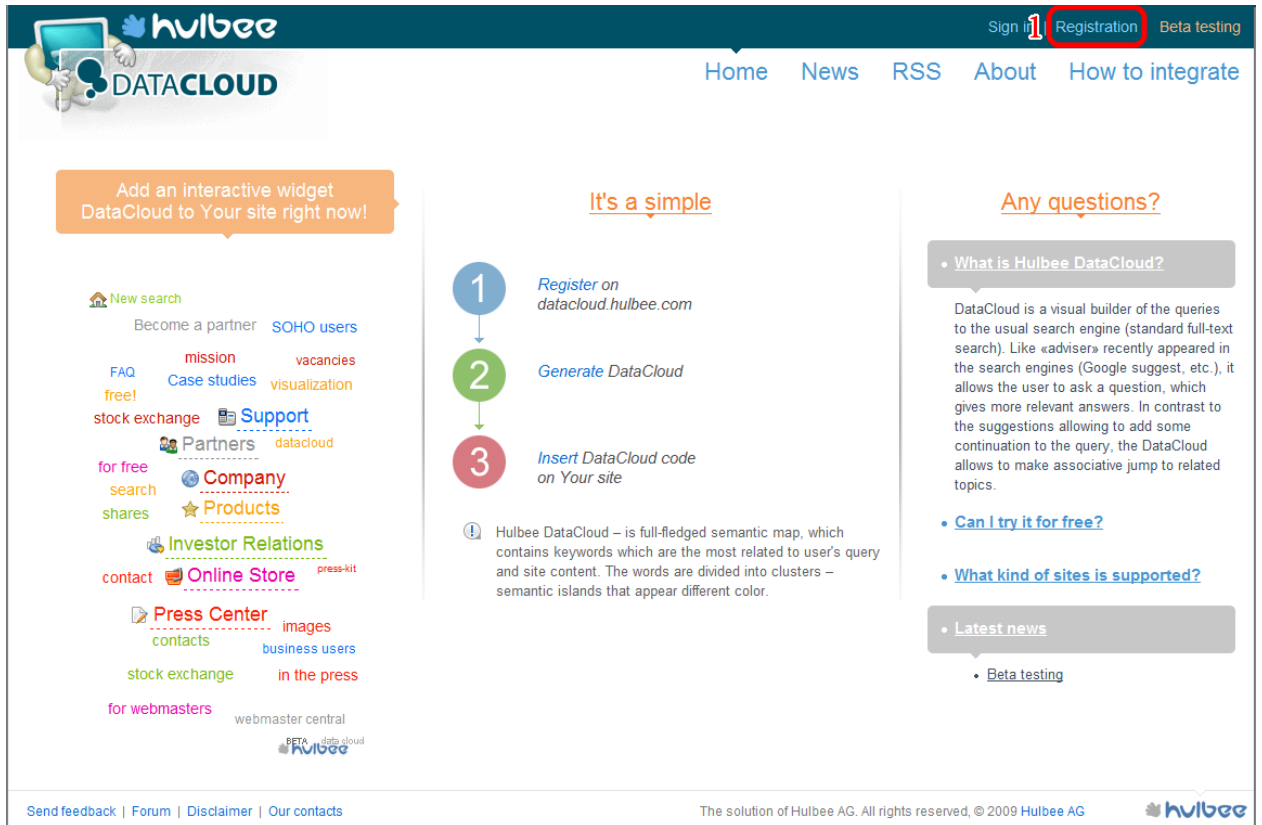


Figure 7. Site on mypersonalblog.com.

2. In order to get the HTML code for the Hulbee DataCloud, you should be registered on the datacloud.hulbee.com portal. To get registered you should go to the registration page (fig. 9). To get on the registration page from home page click on the Link to registration page (fig. 8, marker 1).



1 – Link to registration page.

Figure 8. Hulbee DataCloud home page.

3. To register on DataCloud site you should fill all required fields (fig. 9, marker 1) and click on **Register** button (fig. 9, marker 2). Immediately after that the verification message will be sent to you.

hulbee  
DATA CLOUD

Sign in | Registration | Beta testing

Home News RSS About How to integrate

### Registration

As you register you'll be able to create your own account on datacloud.hulbee.com site and get access to the whole range of services, such as building Hulbee map, tuning it in according to your own tastes and track statistic of your maps usage!

Please fill our registration form to get your own account and to gain full access to datacloud.hulbee.com.

Your name: MyName **1** (enter your name)

Login: MyLogin (enter your user Login)

E-mail: MyLocal@email.com (enter your contact e-mail address)

Password: \*\*\*\*\* (enter your user Password)

Confirm password: \*\*\*\*\* (repeat entered Password)

j7hihe

Code: j7hihe (enter the symbols shown on the image)

**2** Register

Send feedback | Forum | Disclaimer | Our contacts

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hulbee

1 – Registration fields; 2 – **Register** button.

**Figure 9. Registering on DataCloud site.**

4. To complete the registration confirm your e-mail address using the instructions in the verification message. If you don't receive the verification message probably there was error in E-mail field on previous step (fig. 9, marker 1). In this case try to register again (with another login and password).
5. Once registered, you should authorize on the site and go to the *My clouds* section. To get authorized you should go to the authorization page (fig. 11). To get on the authorization page from home page click on the Link to authorization page (fig. 10, marker 1).

1 – Link to authorization page.  
Figure 10. Hulbee DataCloud home page.

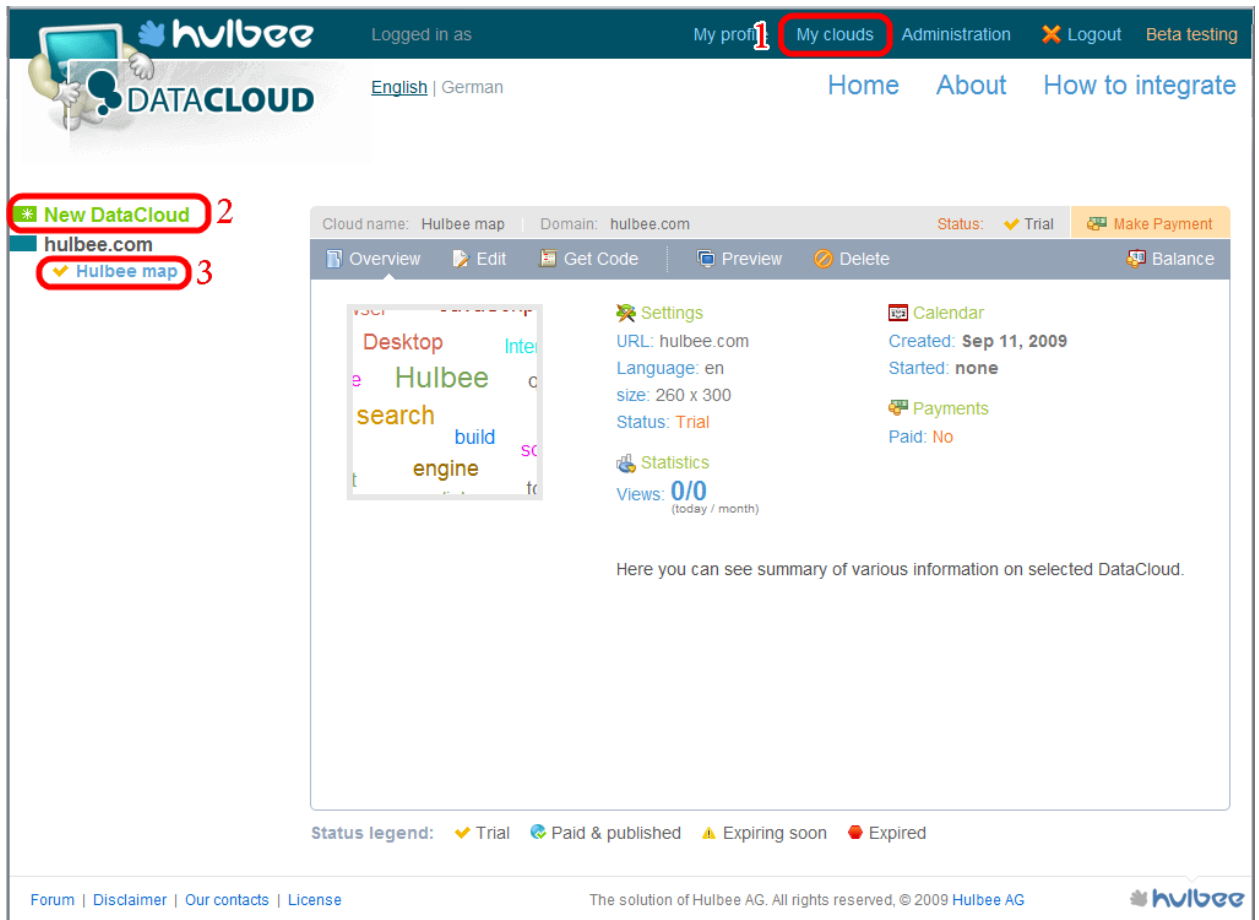
6. To get authorized on DataCloud site you should fill *Login* and *Password* boxes (fig. 11, markers 1,2) and click on *Submit* button (fig. 11, marker 3).

The screenshot shows the login interface for the Hulbee DataCloud site. At the top, there is a dark blue navigation bar with the Hulbee logo on the left and links for 'Sign in', 'Registration', and 'Beta testing' on the right. Below this is a white header area with the 'DATA CLOUD' logo on the left and navigation links for 'Home', 'News', 'RSS', 'About', and 'How to integrate' on the right. The main content area is white and features a 'Sign in' section. This section includes two input fields: 'Login' (with a red '1' marker) and 'Password' (with a red '2' marker). Below these fields is a 'Log in' button (with a red '3' marker) and links for 'Registration' and 'Forgot your password?'. The footer contains links for 'Send feedback', 'Forum', 'Disclaimer', and 'Our contacts', along with copyright information and the Hulbee logo.

1 – Login box; 2 – Password box; 3 – Log in button.

Figure 11. Authorizing on DataCloud site.

7. To get to the *My clouds* section *My clouds* link (fig. 12, marker 1) could be used.



1 – **My clouds** link; 2 – **New DataCloud** button; 3 - “Hulbee Map” test DataCloud.

Figure 12. My clouds page.

8. There are already “Hulbee Map” DataCloud (fig. 12, marker 3) in the **Clouds list**, it is placed there for testing purposes. To create new DataCloud the Cloud wizard should be used.

The Cloud wizard will help you to build the Hulbee DataCloud for your site in 3 easy steps:

- Click the **New DataCloud** button (fig. 12, marker 2) to run the Cloud wizard;

**Step1**

- Carefully fill all required fields (fig. 13, marker 1). To know more about this fields or other options see [Hulbee DataCloud documentation](#);
- Click on the **Next** button (fig. 13, marker 2);

**Step2**

- On this step DataCloud design can be changed. Select desired or keep the default options and click on the **Next** button (fig. 14, marker 1);

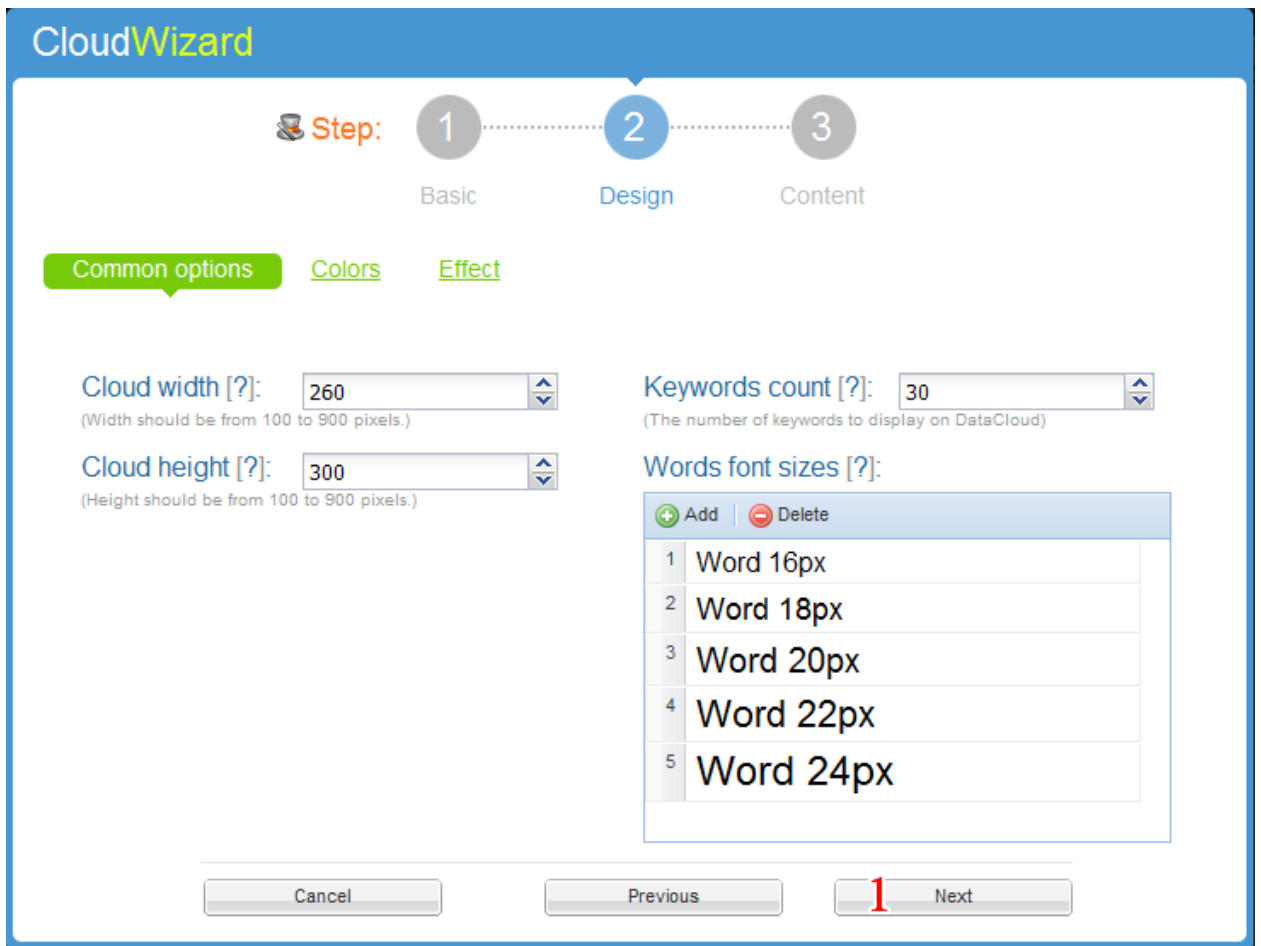
**Step3**

- On this step DataCloud content can be changed. Select desired or keep the default options and click on the **Finish** button (fig. 15, marker 1).

The screenshot shows the 'CloudWizard' window. At the top, there's a blue header with the title 'CloudWizard'. Below the header, a progress indicator shows three steps: '1 Basic', '2 Design', and '3 Content'. Step 1 is currently active. A red box highlights the input fields for Step 1: 'Cloud name [?]' with the value 'MyPersonalBlogCloud', 'Site URL [?]' with 'mypersonalblog.com', and 'Cloud language [?]' with a dropdown menu set to 'English (en)'. At the bottom, there are three buttons: 'Cancel', 'Previous', and 'Next'. The 'Next' button is highlighted with a red '2'.

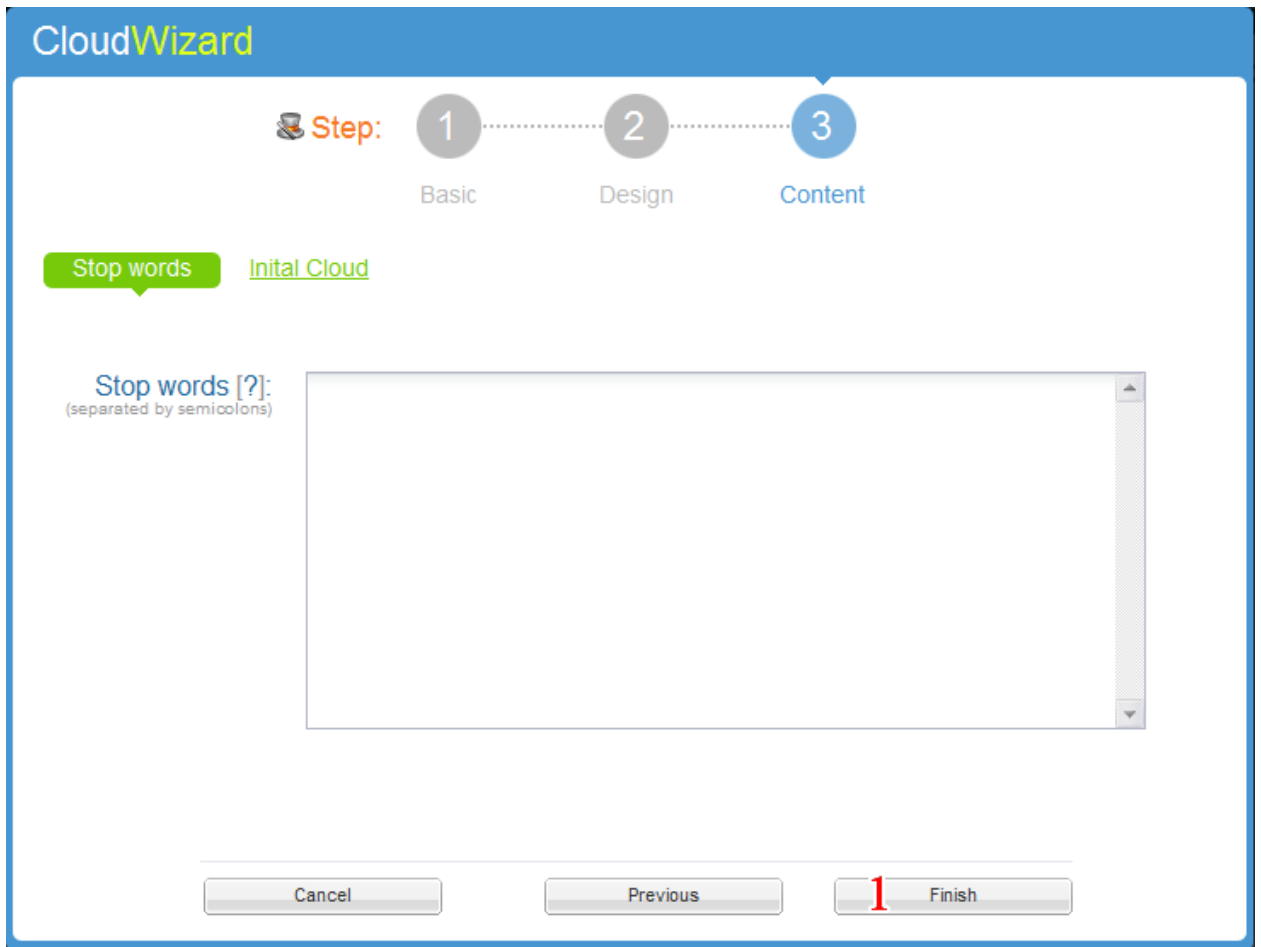
1 – Required fields; 2 – **Next** button.

Figure 13. Cloud wizard window. Step1.



1 – Next button.

Figure 14. Cloud wizard window. Step2.



1 – **Finish** button.

Figure 15. Cloud wizard window. Step3.

9. In a few seconds new DataCloud will be created and added to **Clouds list** (fig. 16, marker 1).  
You can preview and test the DataCloud or edit DataCloud settings. To preview the DataCloud (fully functional DataCloud with query string and search results components for test purposes) select it in the **Clouds list** (fig. 16, marker 1) and click **Preview** tab (fig. 16, marker 2). You will be able to test how DataCloud will work on your site. To edit the DataCloud design and content click **Edit** tab (fig. 16, marker 3).

The screenshot shows the Hulbee DataCloud interface. At the top, there is a navigation bar with the Hulbee logo, user information (Logged in as), and links for My profile, My clouds, Administration, Logout, and Beta testing. Below this is a secondary navigation bar with Home, About, and How to integrate. The main content area is divided into a left sidebar and a main panel. The sidebar shows a 'New DataCloud' section with a list of DataClouds: 'hulbee.com' (with a sub-item 'Hulbee map') and 'mypersonalblog.com' (with a sub-item 'MyPersonalBlogCloud' marked with a red '1'). The main panel displays the details for 'MyPersonalBlogCloud'. At the top of this panel, there are tabs for Overview (marked with a red '3'), Edit (marked with a red '4'), Get Code (marked with a red '4'), Preview (marked with a red '2'), and Delete. Below the tabs, there is a preview of the DataCloud widget showing search results for 'Hulbee' and 'search engine'. To the right of the preview, there are sections for Settings (URL: mypersonalblog.com, Language: en, size: 260 x 300, Status: Trial) and Calendar (Created: Sep 11, 2009, Started: none, Paid: No). At the bottom of the main panel, there is a status legend: Trial (green checkmark), Paid & published (blue checkmark), Expiring soon (yellow triangle), and Expired (red circle).

1 – MyPersonalBlogCloud DataCloud; 2 – **Preview** tab; 3 – **Edit** tab; 4 – **Get Code** tab.

Figure 16. My sites page.

10. To insert the Hulbee DataCloud into your site, you should generate DataCloud widget HTML code. To do this select desired cloud from the **Clouds list** (fig. 16, marker 1) and click on **Get code** tab (fig. 16, marker 4).
11. On **Get code** tab (fig. 17) fill the **Query pattern** field (fig. 17, marker 1) carefully. It is important to input correct Query pattern for DataCloud to interact with your site search engine properly. The Query pattern is the URL that is given by your site search engine when the search query is TEST. To receive the Query pattern for your site, use this advice: input TEST word as a query in your site search string and run a search. By doing so, you make your browser jump to a new URL. Copy this URL to the clipboard - that will be the Query pattern for your site.
12. Click on **Get code** button (fig. 17, marker 2). DataCloud HTML code will appear in **Integration code** box (fig. 17, marker 3).
13. Copy the code (fig. 17, marker 3) to the clipboard.

Name: Hulbee Map | Domain: hulbee.com | Status: Trial | Make Payment

Overview | Edit | Get Code | Preview | Delete | Statistics | Balance

Query pattern:  (example http://www.hulbee.com/index.php?query=TEST)

The query pattern is the URL that is given by your site search engine when the search query is TEST. To receive the query pattern for your site, use our advice: input TEST word as a query in your site search string and run a search. By doing so, you make your browser jump to a new URL. Copy this URL to the clipboard - that will be the query pattern for your site.

Integration code: (copy generated code and paste it to HTML template of your site)

```
<script type="text/javascript" src="http://test.datacloud.hulbee.com/hulbee.ui/jquery/jquery-1.3.2.min.js"></script><script type="text/javascript" src="http://test.datacloud.hulbee.com/hulbee.3jquery.hulbee-all.min.js"></script><script type="text/javascript" src="http://test.datacloud.hulbee.com/resources/23/init.js"></script><div id="hulbee-cloud-23"><noscript><p class="hulbee-error-warning"> You need to turn on javascript in your browser for this widget to work.</p></noscript></div>
```

Get code 2

Status legend: Trial | Paid & published | Expiring soon | Expired

Send feedback | Forum | Disclaimer | Our contacts | The solution of Hulbee AG. All rights reserved, © 2009 Hulbee AG | hulbee

1 – Query pattern field; 2 - Get code button; 3 - Integration code box.

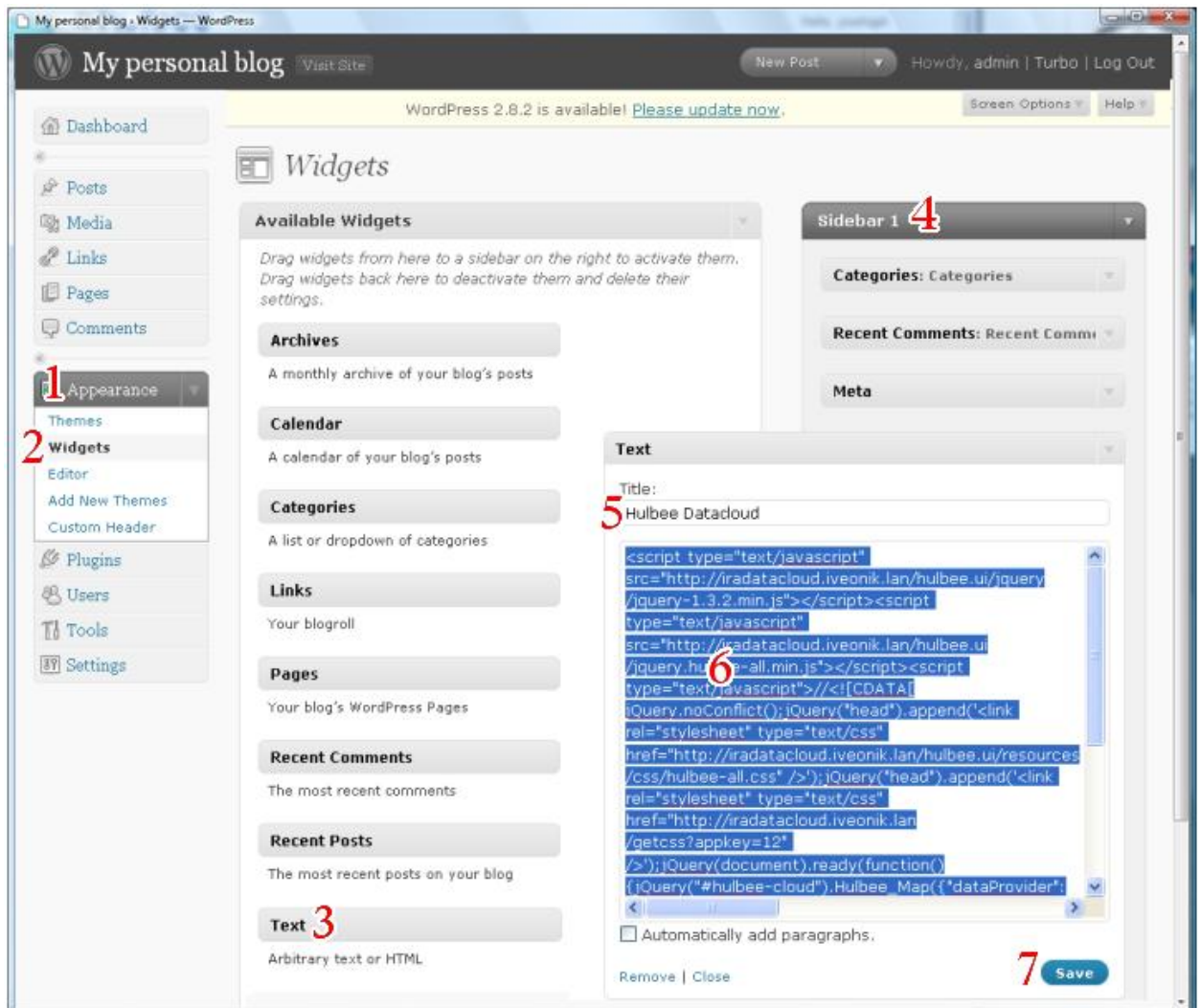
Figure 17. Get code tab.

14. Now you should insert received HTML code into your site pages. Usually this is done by editing template pages or by adding the widget.

Wordpress blog engine has option allowing to add a new widget. Previously received DataCloud HTML code should be used as Widget Code for Wordpress.

It is important to save changes for widget to become available for site users. To Integrate DataCloud HTML code to Wordpress blog you should follow next steps:

- Click on **Appearance** tab (fig. 18, marker 1);
- Click **Widgets** item (fig. 18, marker 2);
- Drag and drop **Text widget** (fig. 18, marker 3) from **Available Widgets** panel to a **Sidebar** panel (fig. 18, marker 4);
- Fill **Title** field (fig. 18, marker 5);
- Paste DataCloud HTML code from the Clipboard to **Widget text** box (fig. 18, marker 6);
- Click **Save** button (fig. 18, marker 7);



1 – **Appearance** tab; 2 – **Widgets** item; 3 – **Text** widget; 4 – **Sidebar** panel; 5 – **Title** field; 6 – **Widget text** box; 7 – **Save** button.

Figure 18. Integrating DataCloud HTML code to CMS as widget.

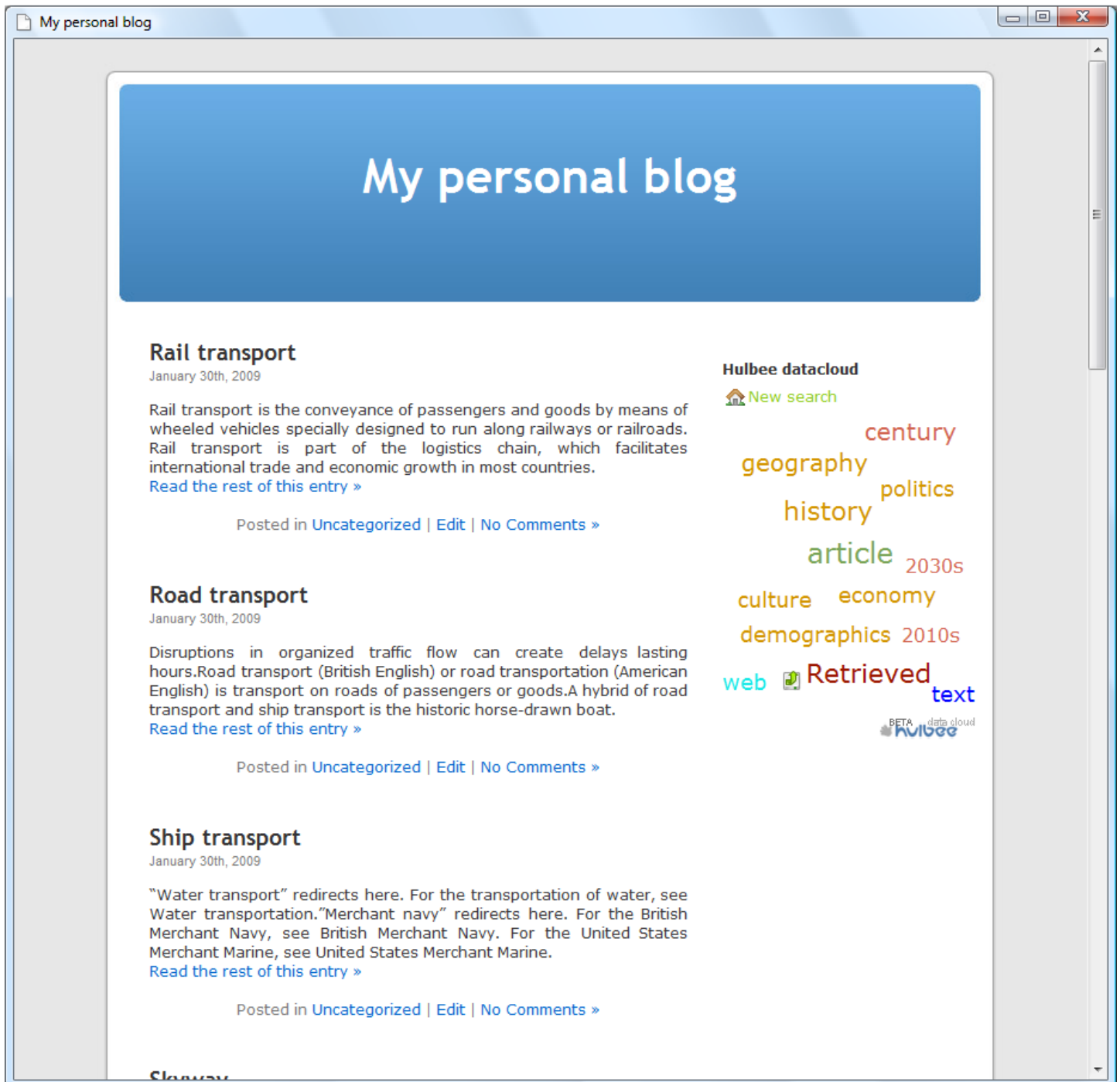


Figure 19. Integrated DataCloud widget.

## Appendix B. "GET" and "POST" submission methods

Usually site search engines support both *"get"* and *"post"* submission methods and it is possible to turn active desired one. To do so see the following example:

1. In page patterns find strings that looks like :  
`<form method="post" name="we_global_form" onsubmit="" action="/DE/suche.php">`
2. Change them into:  
`<form method="get" name="we_global_form" onsubmit="" action="/DE/suche.php">`
3. Test search engine functionality, it should remain the same as before changes was made.

Note that current strings look different for different search engines.

The difference between "GET" and "POST" methods is technically defined so that former means that the data is to be encoded into a URL while the latter means that the data is to appear within a message body.

For both *method="get"* and *method="post"*, the processing of a user's submit request (such as clicking on a submit button) in a browser begins with a construction of the form data set.

Then the form data set is transmitted as follows (quotation from the HTML 4.0 specification):

If the method is *"get"*: the user agent takes the value of action, appends a ? to it, then appends the form data set, encoded using the *application/x-www-form-urlencoded* content type. The user agent then traverses the link to this URI. In this scenario, form data are restricted to ASCII codes.

If the method is *"post"*: the user agent conducts an HTTP post transaction using the value of the *action* attribute and a message created according to the content type specified by the *enctype* attribute.

Thus, for *method="get"* the form data is encoded into a URL (or, speaking more generally, into a URI). This means that an equivalent to a form submission can be achieved by following a normal link referring to a suitable URL. On a typical browser, the user sees the URL of a document somewhere (e.g. on Location line), and if he is viewing the results of a query sent using *method="get"*, he will see what the actual query was (i.e. the part of the URL that follows the ? sign). The user could then bookmark it or cut&paste it for later use (e.g. to be E-mailed or put into one's own HTML document after some editing).

Although the HTML specifications don't say it very explicitly, the fundamental difference between the methods is really that they correspond to different HTTP requests, as defined in the HTTP specifications. See especially Method Definitions in RFC 2616. For form submission with *method="get"*, the browser constructs a URL as described above, then processes it as if following a link (or as if the user had typed the URL directly). The browser divides the URL into parts and recognizes a host, then sends to that host a GET request with the rest of the URL as argument. The server takes it from there. Submission of a form with *method="post"* causes a POST request to be sent.