HULBEE ENTERPRISE SEARCH

User Manual   v. 2.02.20

Table of Content

1 Introduction

Hulbee Enterprise Search (HES) is a search system that provides an opportunity to find the different types of files in different data sources (e.g. enterprise file system, web resources, mail service, etc.) with reference to the activities of the company. Access rights of the specific users are also taken into consideration. The sources that are available for searching as well as separate storages within a source are added to the system and referred by the administrator of the company.

The present Manual is designed to introduce a user to the HES functionality. Please read all information carefully before you start.

 HES provides both basic and special features that serve a quick and efficient work:

- Search in the data sources of different types.

- A comprehensive search for all popular formats.

- Differentiation of access rights for individual users and groups.

- DataCloud for search query refinement.

- Personalized settings of the DataCloud on the home page.

- Filters and an advanced search to narrow down the search area.

- Summary of documents content.

- A quick overview of the search results in the preview window.

- Desktop Manager application to open documents from the enterprise file system.

- User's personal settings.

- Search queries language.

- Improved language support.

- Interface accessible on mobile devices.

HES system user interface is browser-based. A user needs to run a browser on any device and be within the same network with the search server to get access to search functions. To use all functions of HES while working with documents, a user just needs to have a Windows-PC, joined to the same enterprise domain as common documents of the company.

Client-side requirements:

- Windows 7 SP1 or later, with installed updates.
- .Net Framework 4.5.1 or later.
- An only 64-bit system for Desktop Manager installation.
- Latest browser versions (Mozilla Firefox, Google Chrome, Internet Explorer or Microsoft Edge are recommended).

HES provides support and processing of different file formats. Formats that are supported[1] by the HES search engine are listed in the table below.

File format	Extension(s)	Extract texts	Extract meta tags	Extract attachments
Text	txt, rtf, doc/dot, odt, wri, sxw	✔		
	docx/docm/dotx	✔	✔	
Publishing	pdf	✔	✔	
	xps	✔		
Hypertext	html, htm, xml	✔		
	mht, shtml	✔	✔	
Table	xsl, xslt, xls, ods, csv	✔		
	xlsx	✔	✔	
Presentation	pptx	✔	✔	
	ppt, pps, odp	✔		
Graphic	bmp, jpg/jpeg, png, jfif, tif, tiff, jpe		✔	
E-mail	msg, eml	✔	✔	✔
Archives	zip, rar, 7zip			✔
Media	avi, mp3, mp4, wav, m4a, wma, wmv,ogg, flac, mkv, ape, mpc		✔	
Source Code and Scripting	cs, vb, js, csproj, h, c, cpp, vbs,vcproj, vbproj, pl, sql, bat, cmd	✔		
	css	✔	✔	

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[1] The search engine does not just allow indexing meta information of files (file name, path, size, creation date, modification date), but also working with the content of the file – extraction of text and/or meta tags and/or unzipping archived files, that also contain other files. For a list of formats available to the user with a preview, see section 6 – page preview.

If certain formats from the table are processed incorrectly, contact your system administrator. For files protected by passwords, files exceeding the limits on the size or files in formats that are not represented in the table above the search engine carries out the extraction of metadata[1], but not of the text.

Also, the users should pay attention to the documents that have been received by fax, scanner or digital camera that have a graphical representation and no text or publishing formats. The current version of HES does not support OCR technology (Optical Character Recognition).

The information provided in this Manual applies to the HES version 2.2, and it can be modified as new updates become available. If you use the earlier versions, please note the differences between them (see 12).

2 Hulbee Enterprise Search – Getting Started

HES authorization is carried out using domain user account.

Follow these steps to log in:

1. Open your browser and type the URL, given by an administrator of the enterprise, in the address bar (e.g. http://es.company.com/).
2. Fill in the Authorization form and sign in or use the automatic login.

When the possibility of an automatic login is set, a user does not need to re-enter their input credentials into the Authorization form. Just click on "Login using Windows account" and the search engine will take the same usermane and password, which were used for logging the user into the operating system. This setting is performed by the enterprise administrator. Please note that the range of the search engine settings may vary depending on the preferences of the HES administrator of the company.

The Authorization form looks like this:

Fig. 1 Authorization form.

If automatic login is not set, the login form consists of two standard fields (Usermane and Password) and confirm button "Sign in".

There are two variants of login: with the domain name (i.e., DOMAIN\user_name), without domain name (i.e., user_name). In the latter case the domain name, set by the HES administrator, is used.

In the case of incorrect login or password entering, user receives the notification. In the case of correct login or password entering, user is referred to the HES home page (see 3).

Notice! The password aging is limited. For this reason, if a user continues his work after some interval of time, he is referred to the page of password entering before the continuation of work. This option was programmed to protect the user's data when leaving the workstation. After confirmation of the password, the work is continued.

User can click one of the links in the footer of the page and choose the language of the present User Manual. The license agreement is available via another link.

3 Home page

On the HES home page one can see standard search box (Fig. 2, a). Using this box, one can carry out a simple search (see 4).

Additional functional elements to organize more effective search:

- "Advanced search" icon (Fig. 2, b). Quick access to the "Advanced Search" page (see 9).
- Document type filters (Fig. 2, c). Searching only the documents of specific type (see 8.1).
- User profile (Fig. 2, d). Reference to the user account settings (see 10).
- DataCloud (Fig. 2, e). Quick search by using custom queries (see 8.2).
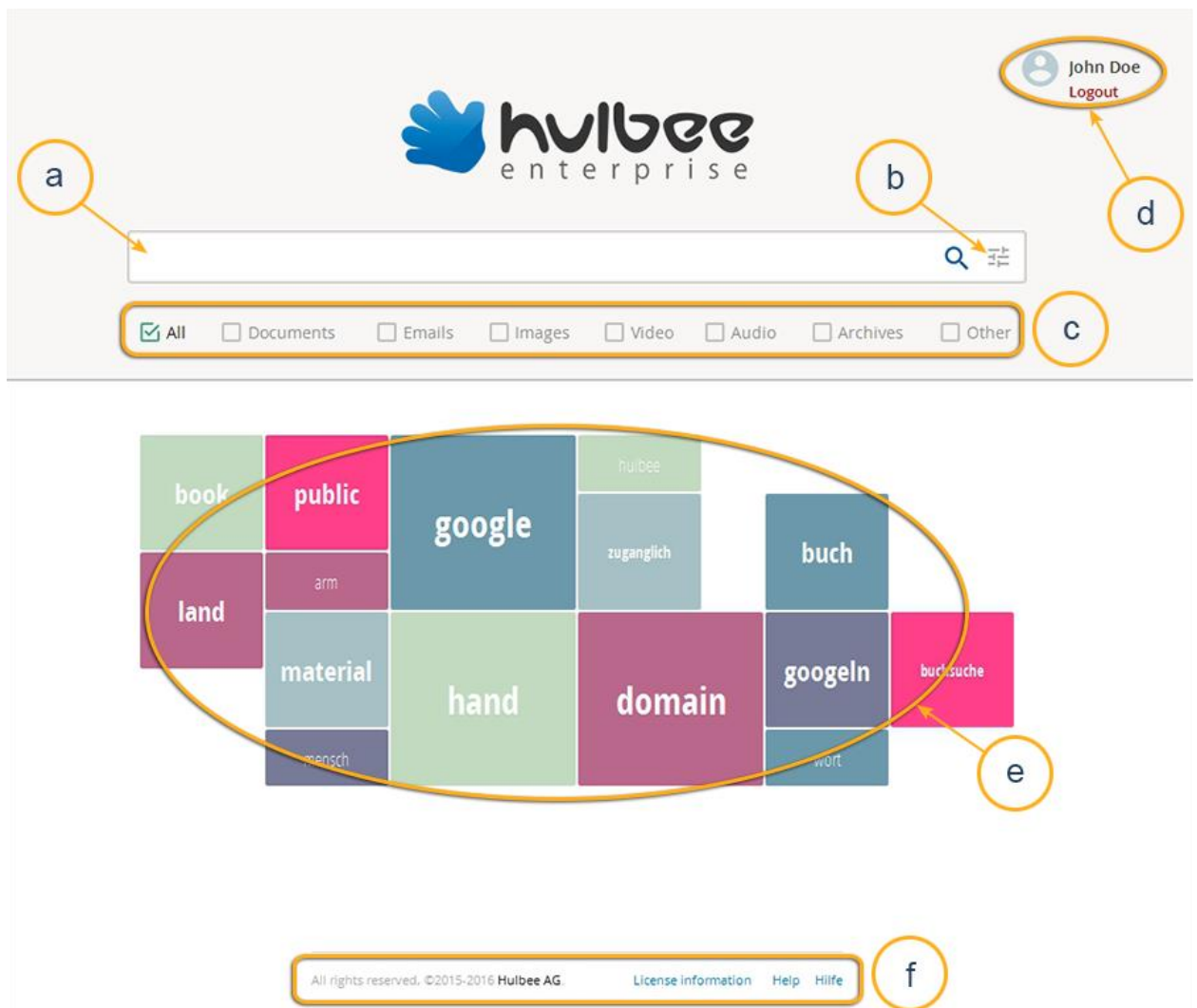
Fig. 2 HES home page.

The use of these functional elements is optional.

The footer of the home page (Fig. 2, f) is organized in the same way as footer of the page with the Authorization form.

4 Search query entering

User query might be entered into the search box, located on the home page (see 3), on the page with the list of results (see 5) and on any other page of the HES system. To start with, please put the cursor in the search bar.

Directly after the beginning of entering, drop-down list – Suggest[2] (Fig. 3) with documents, most appropriate to the entered query, appears. Also, Suggest becomes available after: continuation of typing of the query entered before; placing the cursor in the search box and clicking the down arrow on the keyboard.

Fig. 3 Beginning of query entering. Suggest appearing.

The following actions are possible at this stage:
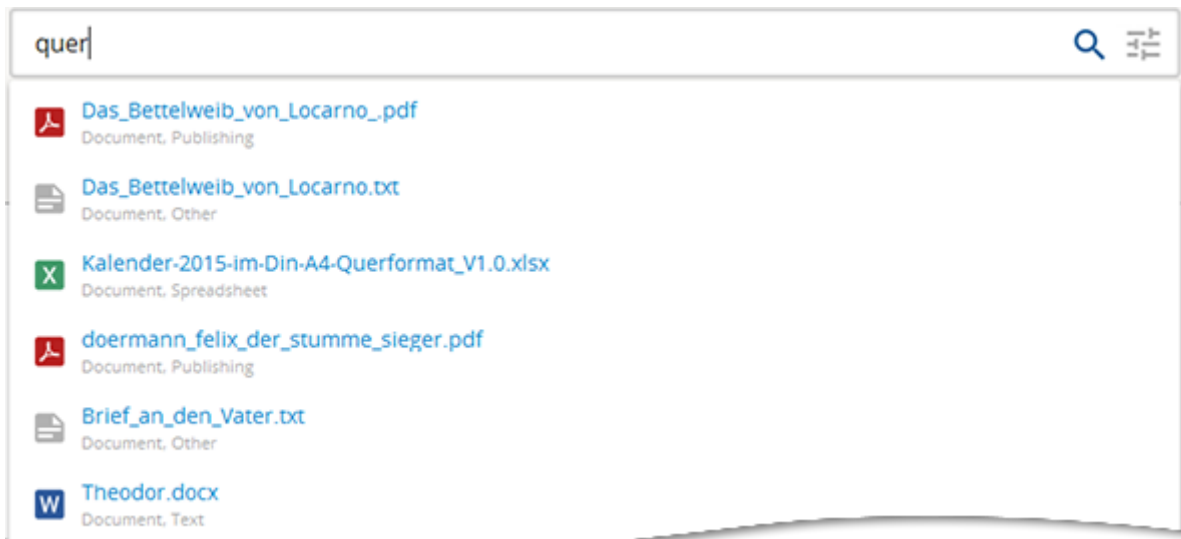
1. Choose an appropriate document from the drop-down list. Click the chosen variant or press <Enter> to confirm.
2. Ignore the prompt and continue entering your own query. To confirm press <Enter> or click on the loupe icon.

In the first case after confirmation, a user is referred to the preview page (see 6).

In the latter case a user is referred to the search results page (see 5).

5 Search results page

A user is referred to the search results page after the start of the search of the query, entered by him (see 4). In the process of search, user permissions for documents are taken into consideration. In other words, user can see only accessed documents in the data storages.

By default, search results are displayed in the details view mode (see 5.2.2), sorted by relevance, that is to say reflecting the degree of relatedness to the user's search query, from more suitable results to less suitable.

The number of search results is shown in the line "*n* items found" (Fig. 6, a). If nothing is found, try to enter another query or check search settings.

Search results page is divided into logical areas: filters area (Fig. 6, b), described in the section 8, and results display area (section 5.2).

It also includes a set of functional elements, suitable for correction of search results and for further work (see 7) with separate documents.

5.1.   Page functional elements

The next sections include the description of search results page elements and their functionality.

5.1.1.   Logotype

Click on the HES "Hulbee enterprise" logotype directs a user to the home page (see 3).

5.1.2.   Search box

A user can change the query entered earlier in the search box, specify it manually or with the help of DataCloud tool (see 8.2), enter a new search query or activate the Suggest (see 4).

5.1.3.   Profile

Profile shows user's personal information. Click on the usermane to access to the personal account (see 10). Use "Logout" link to return to the Authorization form (see 2).

5.1.4.   Toolbar

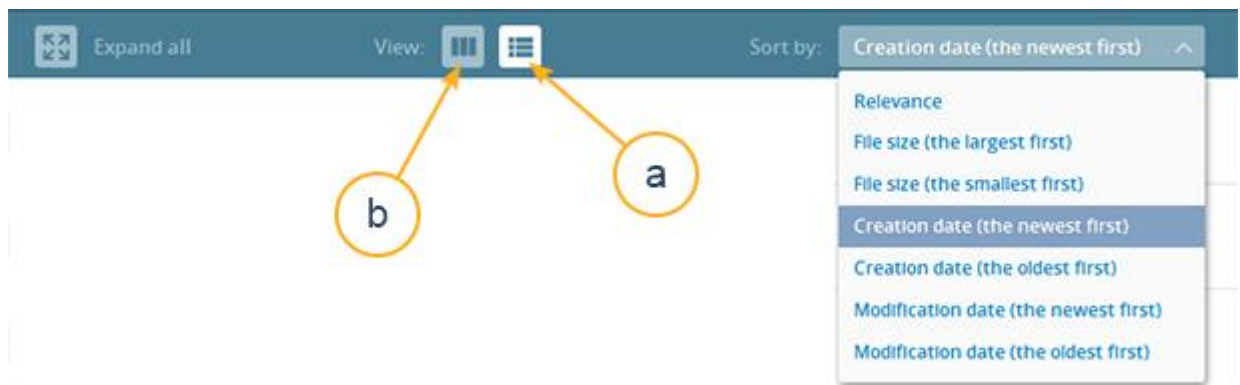Toolbar (Fig. 4) is designed for the setting of search results display.

Fig. 4 Toolbar. Search results page.

One can find the following elements on the toolbar:

- **"Collapse all/Expand all"** option collapses/expands a piece of information, displayed in the search results for each particular document.
- **"View"** option allows a user to change modes of search results display. Two modes are available (Fig. 4, a, b): list view (see 5.2.1) and details view (see 5.2.2).
- **"Sort by: …"** option helps to display the results by sorting them in a way chosen by a user: sorting by relevance[3], file size, file creation date or file modification date. A user needs to choose one of the variants from the drop-down list (Fig. 4).

5.1.5.   Buttons

Element buttons (Fig. 5) implement further actions at the individual documents (e.g. the transition to the preview of the document, opening the document, etc.). For more information about working with search results, see section 7.
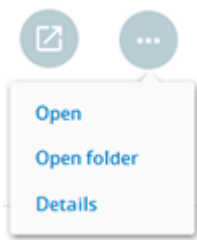
Fig. 5 Buttons with additional commands.

5.2.   Modes of search results display

The search results can be displayed in two modes: list view mode and details view mode.

In both modes, a user can see the only limited amount of the results at once. For loading of the next portion of the results, click on the button at the end of the list.

5.2.1.   List view mode

This mode allows a user to view the search results quickly. To see listed results choose the "List view" mode (Fig. 4, a), using component "View" on the toolbar (see 5.1.4).

In this case, the information on each result is displayed by separate blocks (Fig. 6, c) and includes the name of a document, its location, creation date, size and tags (Fig. 6, d). The tag defines the file type; the second tag specifies the file type for documents, containing text. In the case of text files, the document fragment containing the query or its part is also shown.
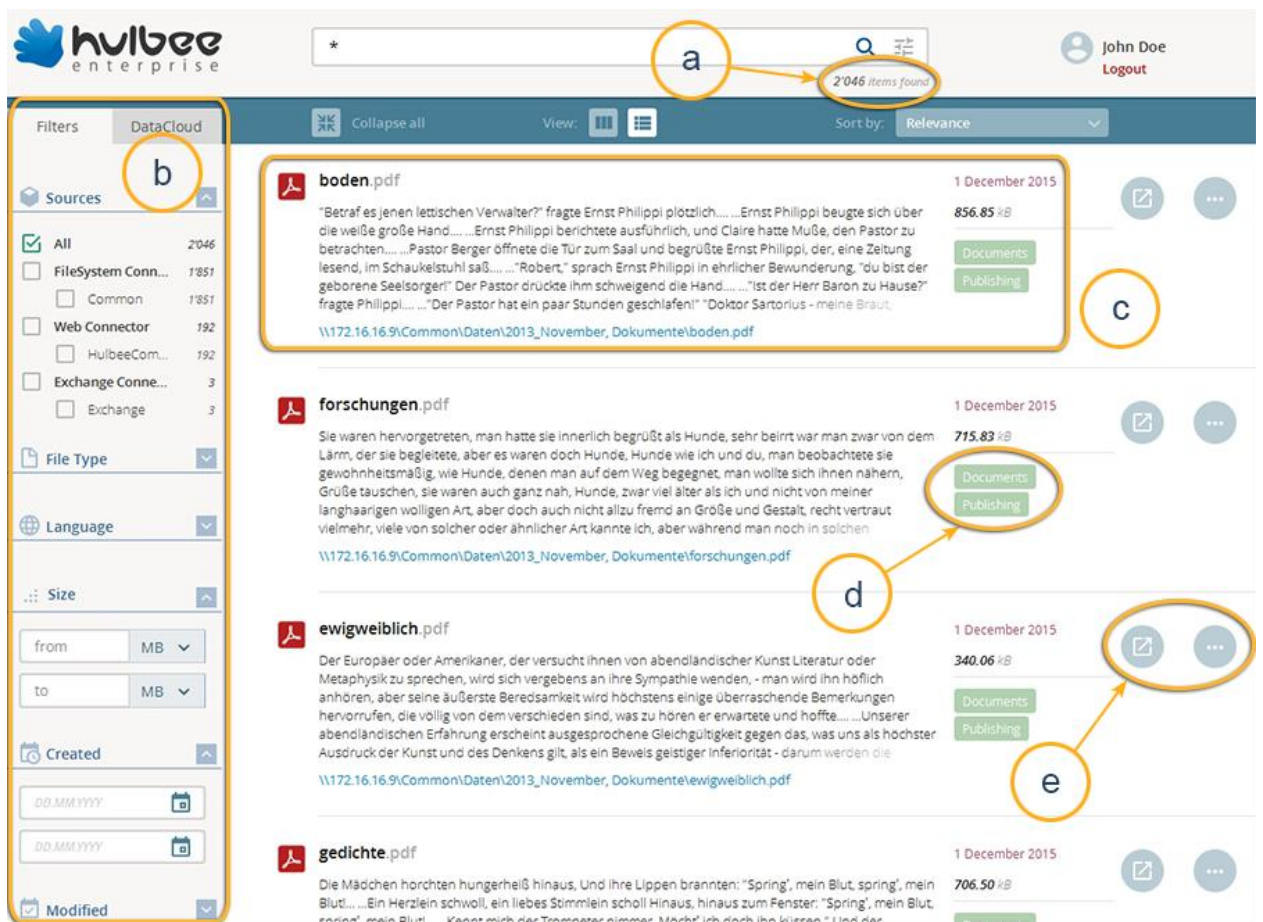
Fig. 6 Page with the list of search results. "List view" mode.

From the "List view" you can switch to the "Detail view" (see 5.2.2), and vice versa.

5.2.2.   Details view mode

Choose the mode "Details view" (Fig. 4, b), using component "View" on the toolbar (see 5.1.4) to see detailed results.

"Details view" mode combines the list of search results with the preview page. So, in this mode search results are displayed in two columns: the first (Fig. 7, a) represents a list of the results and the second (Fig. 7, b) shows the detailed information on each result in common with the preview page (detailed description in section 6).

Fig. 7 Page with the list of search results. "Details view" mode, tab "Summary".

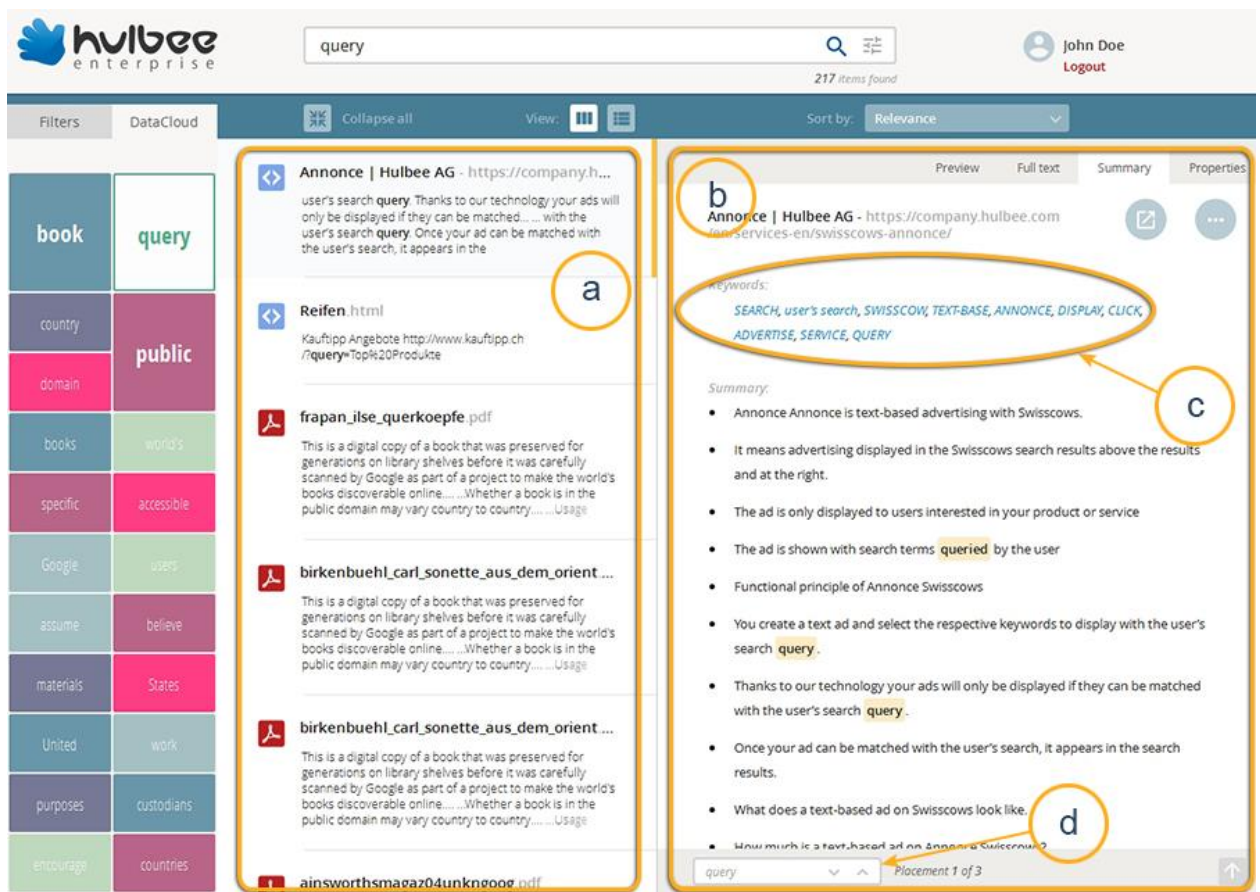There are some tools for navigation through the documents (Fig. 7, d) located at the foot of the preview column. Their description is given in section 6.

From the "Detail view" you can switch to the "List view" (see 5.2.1), and vice versa.

6 Preview page

Shift to the preview page may be caused by the following:

1. Selection of a document from Suggest (see 4).
2. Click on "Details" (Fig. 5) to see the information on a specific document (from the search results page).
3. Click on the block (Fig. 6, c) with information on a document (only list view mode).

The preview page is divided into two areas. The first contains File details (Fig. 8, b) or metadata and Actions (Fig. 8, a) – the list of user's possible actions for found documents (see 7). The actions from the list can also be performed by using the special buttons (Fig. 5). In the second area contents of the document are displayed.
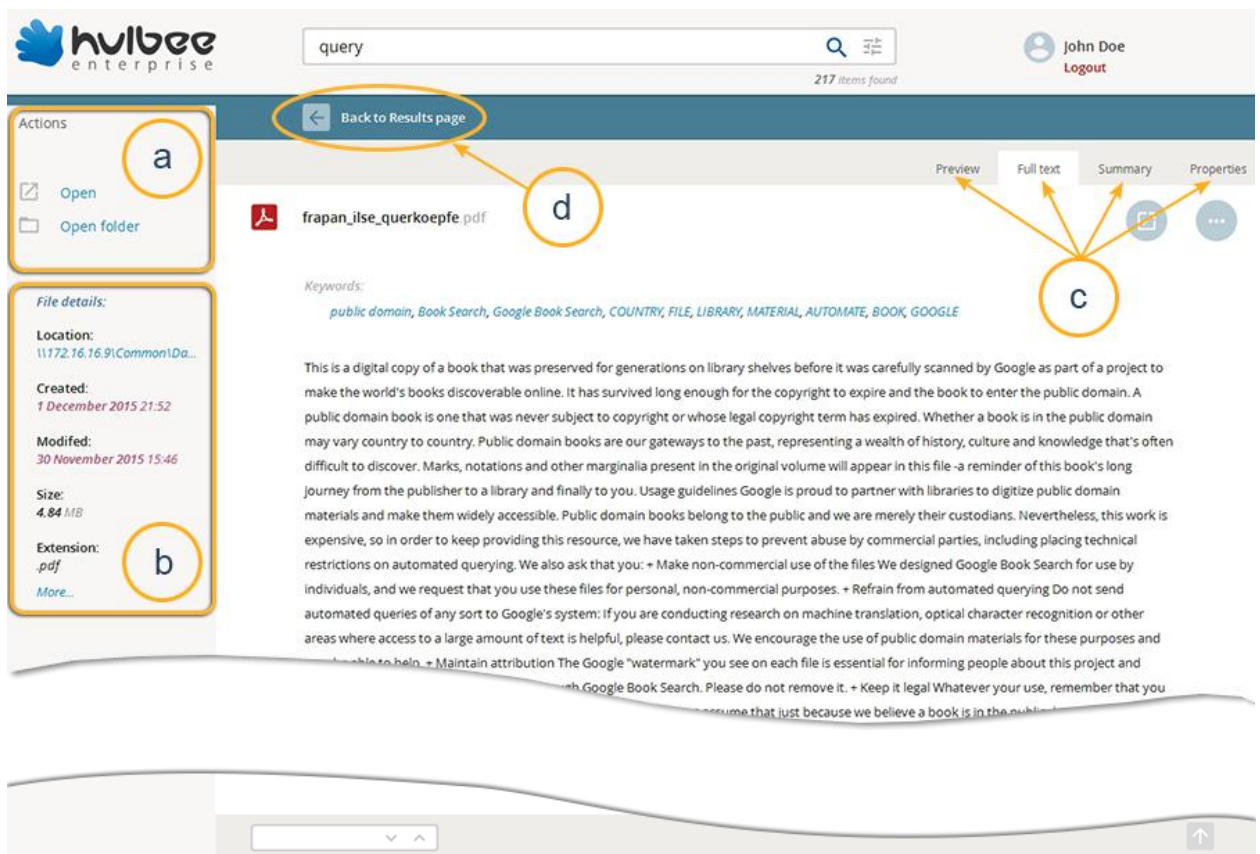
Fig. 8 Preview page. Tab "Full text".

Metadata is data about the location of the document, date of its creation, file modification date, size, extension, the language of the document and its type. To see all properties of the document, click on the link "More…" at the end of the list with metadata. You can minimize the list by click on the link "Less…".

The second column represents the information on document contents and includes several tabs (Fig. 8, c):

- Tab **"Preview"** shows the document in the most appropriate appearance of the original document (adapted from the original document). This display mode is available for the following formats: pdf; docx, odt, ott; xls, xlsx, ods and some formats of images, audio, video (supported by your browser) and HTML pages that are adapted for a safe browsing. For example, allow or deny the JavaScript execution, can be configured by the administrator for specific domains. Pay attention to tools for searching the document, located at the bottom of the tab. They may vary, depending on the type of document.
- Tab **"Full text"** contains the name of the document, keywords line and text of the document in full or partially, depending on size and file type limits.
- Tab **"Summary"** also represents the name of the document and keyword line, but full text is replaced by digest[4] – summary of the document in the form of paragraphs. Digest includes the most important sentences to make user understand what the document is about. It is useful for large documents.

- Tab **"Properties"** gives information on document properties and, partly, duplicates metadata section.

For graphics, audio and video files only "Properties" and "Preview" tabs are available. It applies to both preview page and page with results (details view mode (see 5.2.2)). The "Preview" tab, if such is provided for the document (see the tab descriptions), contains embedded audio- or video player, or preview of image. The list of formats for which the preview is available depends on codecs, supported by browser. Generally, this list includes common images (jpg, png, gif, tiff, bmp), mp3 sound files and mp4 video files with codec x264. In other cases, warning concerning impossibility to show this file type in the browser and suggestion to open it in the proper application on a computer for the continuation of work appears.

Notice! Keywords on the preview page, as well as on the search results page (Fig. 7, c), are part of digest and include the most important words and phrases. The keywords are links. After the click on the keyword, the system begins to search for it in the text, displayed below. In such a manner keywords help to navigate through the text.

Notice! For documents, which contain text, a lot of information could be shown in the tabs "Full text" or "Summary". So some navigation tools (Fig. 8), located on the bottom of the page, are provided. They include word or word group navigation and standard "To top" button. Enter a word or group of words into the appropriate field and use up or down arrows, going through document contents. On default the field contains the text, entered by a user in a query. In the process of keyword navigation, the field reflects the word, chosen by a user from the keyword list. To some degree, this navigation is the analog of the system search, but in the frames of one document. If you cannot find search results for the word in the document, maybe the word entered was added to Stopwords by the HES administrator.

As other pages of the search engine, the preview page contains such functional elements as logotype, search box and profile and elements buttons (see 5.1.1-5.1.5). By clicking on the appropriate link (Fig. 8, d) you can return to the result page. In some cases (for example, the direct transition of sent link), the link is missing or leads to the previous page.

7 Working with found documents

Documents, found by the HES system after user's query processing, are available for further work with them, according to the user's access rights. The documents can be viewed directly in the HES (see 7.1.1). Also, these can be opened with the help of utility Desktop Manager (see 7.2) – files from the enterprise file system, or in the browser (see 7.1.2-7.1.3) – files from the web resources.

7.1.   Viewing the search results in browser

7.1.1.   View documents in Hulbee Enterprise Search
Any documents from the results list, regardless of the data source (file system of the company, web resource, etc.), can be viewed through the HES interface in any available Internet browser.

You can perform the following actions while working with the search results in HES:

- Choose the different modes (see 5.2) of search results presentation (list view, details view) for more convenient viewing.
- Switch between the tabs "Preview" (is not available for all documents – see 6), "Full text", "Summary", "Properties" to view the adapted document, the full text of the document, summary, or metadata.
- Transition to preview page (for all documents) by clicking on the item "Details" (Fig. 9) or the block (Fig. 9, a), containing information on a specific document (only in list view mode).

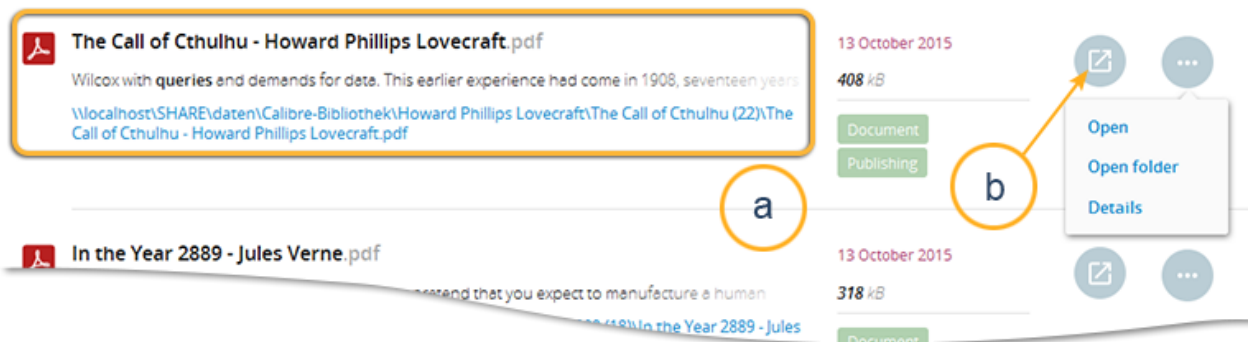Here are HES functional elements, connected with viewing the search results and document contents:

Fig. 9 Block with the information on document (list view mode). Buttons with command options.

In other cases, an attempt to open the document is made using the Desktop Manager utility (see 7.2) or without (see 7.1.2, 7.1.3), according to the file source and file types.

7.1.2.   View documents from the Web Resources

Documents placed on the web resources, as the rest of the documents, can be viewed directly in the search engine (see. 7.1.1).

The difference is that they can be opened in a new browser tab. To perform this, do one of the followings:

- Select the item "Open" (Fig. 9) from the drop-down list.

- Click on the button ![icon] (Fig. 9, b).

After opening, you can view the page or download the document to your computer.

Documents from the web resources are displayed in the search results if user has access rights and appropriate connector (Web Connector) is added. You can choose only such documents using the filters on the source – Sources -> Web Connector.

It may happen when you try to view a document with a web-resource in preview mode through HES interface that authentication is required. The source will be available only if you know the username and password to log in to this resource.

7.1.3. Viewing documents on mail service MS Exchange

The search result may contain different types of files, including email files. These include mails (and their attachments) from mailboxes on the MS Exchange service.

The documents from MS Exchange can be viewed directly in the HES (see. 7.1.1) as "Full text" or "Summary" or metadata. A user can see only his personal correspondence and does not have access to the correspondence of other users from Active Directory. An exception is made only for the HES administrator.

When trying to open these files (the option "Open" from the drop-down list (Fig. 9) or clicking on the

button ⧉ (Fig. 9, a, b)), user is being forwarded to Outlook Web App. If necessary, fill in the authorization form, using the username and password, under which you are registered on the mail service (the same as those used to log on to Windows and HES). Please note that the domain name should be at the beginning of the "username", for example: hes\user_name.

You can choose only email from MS-Exchange using the filters on the source – Sources -> Exchange Connector.

Notice! It may happen that Exchange Connector is missing in the filter area on your page. Possible causes are no e-mail mailbox on a MS Exchange, no incoming\outgoing emails, using of filters that exclude the mailboxes from the search result.

7.2. Desktop Manager Utility

Utility Desktop Manager is only used to open files from the file storage of the company or the folder containing the files, if opening the file is not possible (for example, the file is zipped, file path is too long, etc.).

It provides an opportunity to work with the original file and not with its copy, downloaded via browser.

Desktop Manager launch may be caused by the following:

1. Click on the item "Open Folder" (Fig. 9).
2. Choose item "Open" (Fig. 9).

3. Click on the button ⧉ shown on the (Fig. 9, b).

If the user is detected and has access to the opening file, Desktop Manager calls up an associated program, taking into account settings of the system concerning standard software. For example, *.doc, *.docx files can be opened in Microsoft Word, Open Office, *.txt files – in Notepad, etc. Referring to archives (*.rar, *.zip) and executable files (*.exe), explorer opens the folder, containing them.

Desktop Manager should be installed and started on the client computer. The utility has autoload, and it is available right after user login. It does not have its own interface, so, if the program is started, user sees the "hand" icon in the Windows task bar (if you hover a cursor, you will see the prompt Hes.Desktop.Manager).

The user has an indicator available, with the information on the status of the connection. When the indicator is green, the connection to the HES could be produced. Otherwise, the indicator is displayed in gray .

If the utility is not installed (a user is offered to install Desktop Manager, or he does not see the utility icon), do the following to install it:

1. Push the button "Download & Install" in the message window.
2. Confirm that you want to download the file by click on "Save File" and open it in the folder.
3. Run the executable file.
4. Follow the prompts of the installation wizard.
5. In the selection "Install just for you" or "Install for all users of this machine" leave the default option.

An additional step of the installation, where it is suggested to enter the URL, can appear. Enter the same URL that was used to start the HES (see 2) instead of http://localhos.

In the case of the wrong URL entering you can change them using item "Options" from the context menu. It displays after clicking the Desktop Manager icon, which located in the notification area of the Windows taskbar.
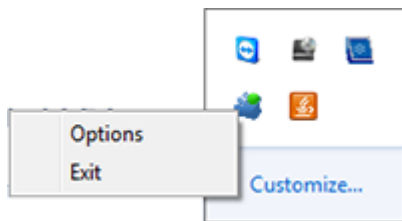

Fig. 10 Desktop Manager icon, context menu.

Also in the window "Hes.Desktop.Manager options" you can choose "Prefer HES URL from registry". After installation, change of settings will only be available on your local computer. Do not perform this setting unnecessarily.

Notice! After installation, the utility is added to the autorun. It may happen that for some reason the autorun has not occurred, and when you try to open a document from the file repository, the user will be prompted to install the Desktop Manager again. First of all, try to run the utility from the folder Hulbee AG -> Hes.Desktop.Manager.

8 Search results limitations

Search results limitations mean the reduction of quantity of displayed results by the elimination of results not matching definite criteria.

These criteria are established by a user with the help of filters (see 8.1), provided by the search engine, and also with the help of special-purpose tool DataCloud (see 8.2).

There tools are available on the search results page (Fig. 6, b). DataCloud is also available on the HES home page (Fig. 2, e).

8.1. Filters

The possible ways of filtering search results are as follows: sources, filter by type, language and size of the document, date of its creation or modification.

Filter by sources can filter by the type of document storage (enterprise file system or web resource, email resource etc.), as well as by the name of the individual repositories within the storages. Please note that not every source is divided into multiple repositories. Some sources in the repositories that are displayed in the drop-down list are referred to as the administrator of the enterprise.

After the query execution, it is known how many files from the total quantity of search results match one or another criterion. Counters, located in the filters column, display this information.

You can filter search results both by one criterion and by several criteria at the same time.

To filter search results do the following:

1. Choose the necessary filter from the filters column.
2. Choose the necessary item from the list of all possible variants.
3. Continue with another filter, if necessary.

The page reloads automatically and you see filtered results. After using filter, the quantity of search results changes. It is displayed by search results counters on the page and counters in the filters column.

Using filtering by type you may choose subtype for documents, containing text (for example spreadsheets, presentations, etc.).

Using filtering by file size and date you may see special input fields. You will have the possibility to choose unit of measurement of file size and to use calendar. Changes should be confirmed or cancelled, if necessary.

You can return to view all found files by cancel the chosen filters with the provided cancel button "Remove" (filter by date or size) or choose "All" for the other filters.

8.2. DataCloud

DataCloud is a set of tiles[5] of different colors with keywords inside. The colors of tiles reflect semantic similarity of terms.

The HES system has two DataClouds with different ways of filling.

The first DataCloud is available on the HES home page (see 3). Here, words inside tiles are custom queries (see 10.2), entered into the system by administrator and users. Each user does not have access to words, entered by other users. When finding lack of custom queries, the cloud adds keywords from documents, containing text. Its elements are ordered at random, occupying the designated area.

When you choose a tile, the search for your query starts and you will be referred to the search results page (see 5).

The second DataCloud is located on the "DataCloud" tab on the search results page (Fig. 7). It consists of query-tile (white tiles) and words, which are the most frequently repeated words, chosen from the found documents, excluding stopwords (see 10.3).

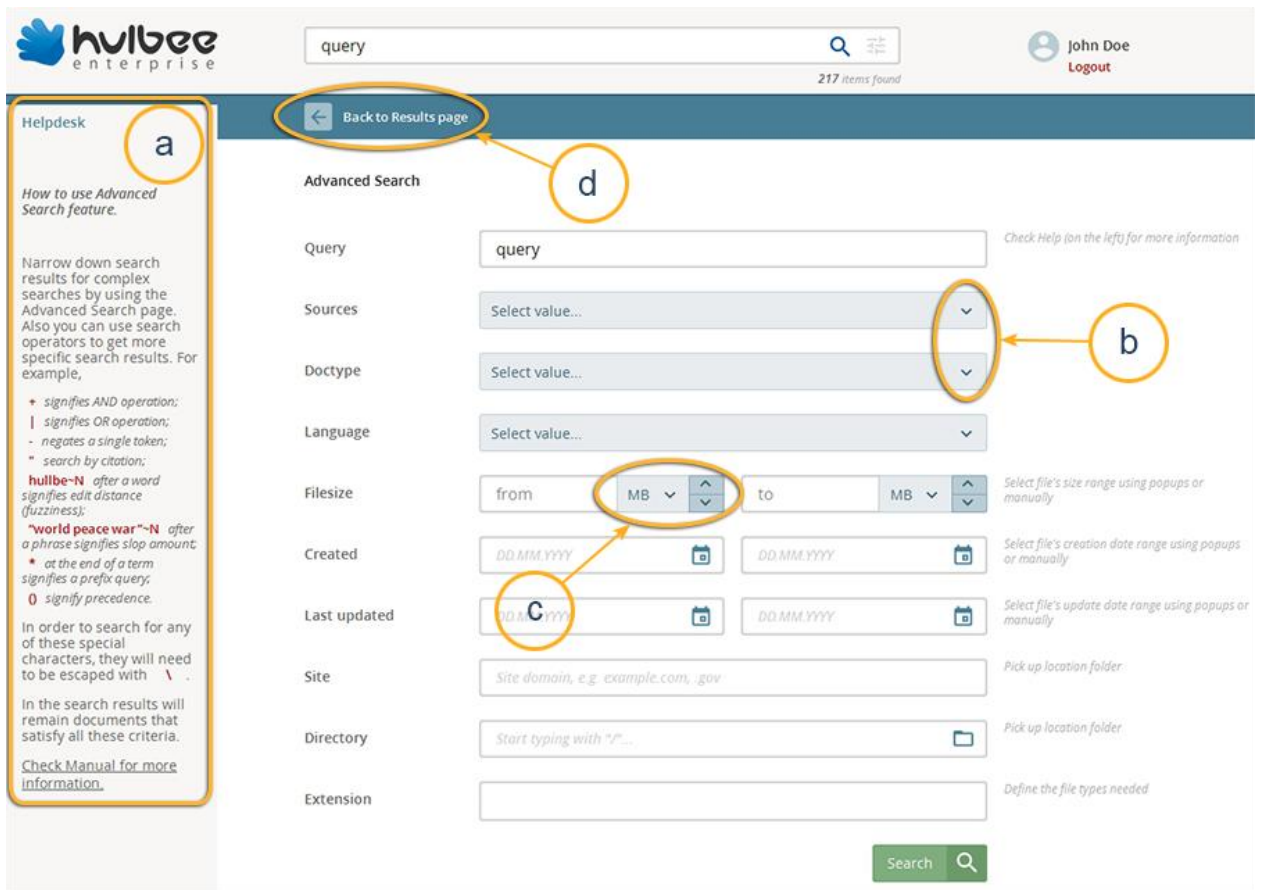This DataCloud helps to specify the search result by adding new words to the entered query.

By clicking on an arbitrary tile, you add the word of the tile to the request.

By clicking on the query-tile, you delete this term from the query and the search starts without it after page reloading.

9 Advanced search

The advanced search offers an opportunity to use further search criteria, narrowing down search results.

To begin the advanced search click on the icon ⚍ "Advanced Search", located in the search box on any HES page (Fig. 2, b). This icon is a link. It becomes active when you hover a cursor over it. You also see the prompt, describing its function.

Fig. 11 Advanced search page.

The heading of the advanced search page contains the same functional elements (see 5.1.1-5.1.3) as other HES pages.

The page itself is divided into two columns. The first column contains support information (Fig. 11, a), concerning more effective use of the advanced search (see 11).

The second is a form of the advanced search. You may find the following fields in it:

- **Query.** User's search query.
- **Sources.** Source of the document.
- **Doctype.** Type of the file.
- **Language.** The language of the document.
- **Filesize** (you may indicate not the exact size, but a range).
- **Created** (you may indicate not the exact date, but a range of time).
- **Last updated** (you may indicate not the exact date, but a range of time).
- **Site.** Site search. Only at the domain: example.com or .com
- **Directory.** File path should be entered in a standard way. Different level folders are separated by slashes. If you start typing with a slash (double slash), proposal list will be available. When you type the name of file or folder not adding any symbols, you will see the documents with this name in the path.

Please note that although the fields Directory and Site are for the refinement of search queries that relate to various sources, a simultaneous input will not display a search result.

- **Extension.** This field should be filled with extensions without leading dot. For example: pdf, txt, doc, etc. You may add more than one extension at the same time. Use <Enter> after adding every extension.

While filling the form, pay attention to text prompts near its fields.

Select source, document type, and language among the variants of a drop-down list (Fig. 11, b). You may choose several variants.

There are spinners[6] (Fig. 11, c) in the document size selection field and calendar in the date selection field.

On the advanced search page, as well as on the preview page (see 6), there is a navigation link (Fig. 11, d), which shifts you to the search results page (see 5).

After returning to the search results page, only those results that are not subject to restrictions set will be displayed on it. User has the possibility to return and edit or complete the previously entered advanced search settings. They are not only stored, but also displayed on the search results page in the "Filters" area.

10 User account

Click on your name in any HES page profile to go to your personal account.

The profile contains the "Logout" link, which shifts you back to the login form (see 2) to change user account, and also user's personal information. It includes username, taken from enterprise Active Directory.

With the help of personal account, a user can manage his personal settings, provided by the search engine. All variants of settings are listed in the left column and are called "My Settings".

10.1. Preferences

In the "Preferences" section you may choose the interface language. Select the necessary language from the drop-down list. Then save the setting.
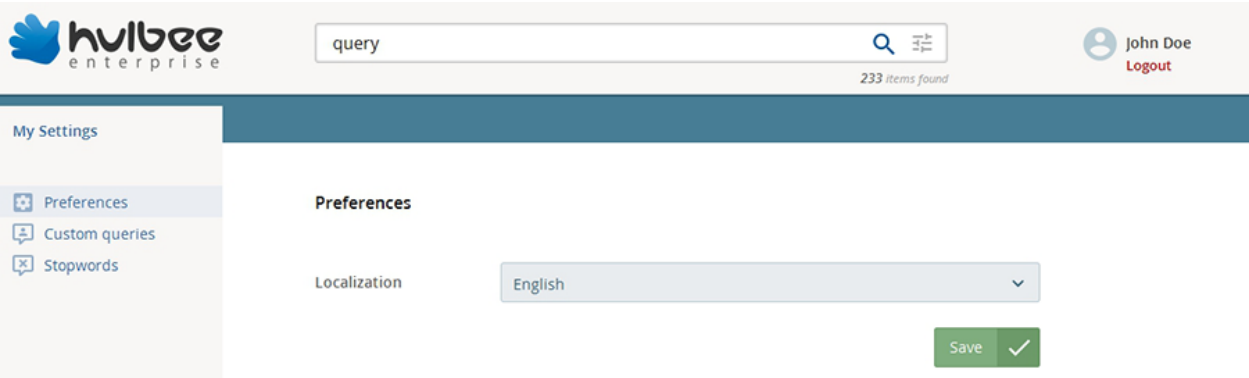
Fig. 12 User account. "Preferences" section.

10.2. Custom queries

"Custom queries" allow you to add keywords, which later will be reflected in the DataCloud on the home page, and which help to enter typical search queries quickly.
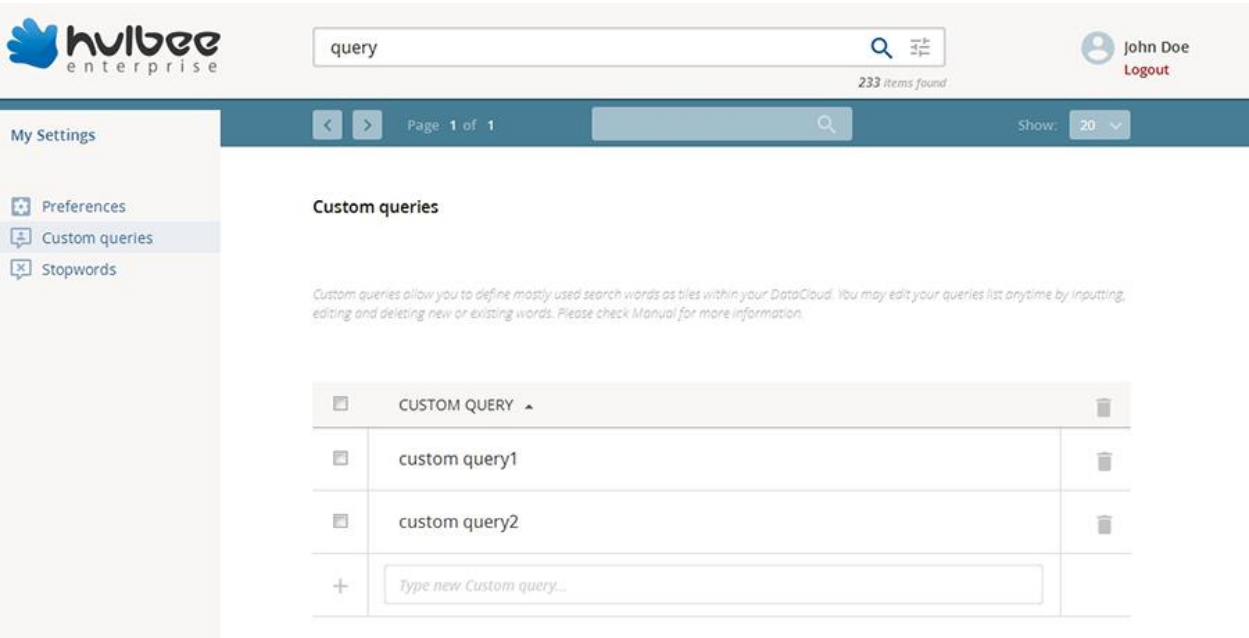
Fig. 13 User account. "Custom queries" section.

Using the keyboard, you may type custom query in the line on the right. Then press <Enter> and continue typing, if necessary. You may add, edit and delete custom queries.

There is also custom query navigation - page scrolling (if you have more than one page), implementation of the search by the custom queries and determining the number of requests that are displayed on a page.

If you enter more keywords than DataCloud can hold, part of them will not be displayed (at random).

10.3. Stopwords

Using "Stopwords" tab you may indicate words, which you do not want to see in DataCloud, located on the search results page. For example: the name of the user's company. It can be found almost in every document, for which reason it is useless for query specification.

Work with stopwords list is similar to the work with search query list in the "Custom queries" tab.

11 Search query language

Support information contains the list of search operators – special symbols and (or) keywords, added to the query for specifying search results or used as independent queries.

11.1. Search query operators

To see all variants of possible search queries, visit the advanced search page (see 9). They are displayed in the first column of the page.

Here are the examples of formation of queries through the use of search operators. Words for query example: "world", "peace", "war".

- Operator **"+"** – signifies "AND" operation, e.g. **world + peace** – searches for documents containing words "world" and "peace" at the same time (in general case, world + peace = world peace).
- Operator **"|"** – signifies "OR" operation, e.g. **world | peace** – searches for at least one of these words.
- Operator **"-"** – excludes the word after, e.g. **world -war** – shows the results containing the word "world" and excluding the word "war".
- Quotes **""** – if the phrase, e.g. **"world peace war"**, is quoted, words in the search results will be ordered in the same way.
- **"~ N"** – the less restrictive query, than "". By "~ N" (e.g. **"world peace war"~N**) the search will be extended, so that keyword matching results can still be found, where N stands for the maximum number of possible variations of the search term (insert, delete, rearranging of words) that can be inserted so an accurate search result can be displayed.
- **~N** – fuzzy search; stands for the maximum number of possible variations of the search term (insert, delete, rearranging of letters) that can be made so an accurate search result can be displayed. For example if we do not know exactly how to spell the brand "Hulbee", even **hullbe~2** query displays the correct search result.
- Operator **"*"** – substitutes any unknown word ending in the query. in this case the search is carried out only by known fragment, e.g. **pe*** – pen, person, peace, etc.
- Operator **"()"** – arranges order of use of logical operators similar way that mathematical parentheses; used for complex query formation, e.g. **(world -war) | (world -peace)**.

If a user wants to use one of the above mentioned symbols in the proper sense, **"\"** symbol should be typed first.

11.2. Shortcuts

There are some more search queries, beginning with ":". All of them become available in the drop-down list after typing ":" symbol in the query line. You will also see a short description of such queries and their input format.

- **:all** – all files accessible for a particular user are shown; the same query returns, for example, all text files, if a limitation on type of displayed files is placed;
- **:doctype:** – returns documents belonging to one or several doctypes, e.g. **:doctype:Document,Image,Video**;
- **:lang:** – returns documents in one or several languages, e.g. **:lang:en,de**;
- **:size:** – returns documents whose size in bytes satisfies the condition, e.g. **:size:0-1024**;
- **:created:** – returns documents whose creation date satisfies the condition, e.g. **:created:01.01.2015-31.01.2015**;
- **:updated:** – returns documents whose modification date satisfies the condition, e.g. **:updated:01.01.2015-31.01.2015**;
- **:extension:** – returns documents of one or several extension, e.g. **:extension:.doc,.pdf**;
- **:path:** – returns documents located in a specific folder, e.g. **:path:/public/docs**.
- **:site:** –returns documents with a specific site or domain.

All queries listed begin with a colon. This format should be maintained without spaces or punctuation marks at the end of the query.

12 Differences between Hulbee Enterprise Versions

The main differences from version 1.7 to version 2.0:

1. The possibility of an automatic login.

2. The possibility of looking for documents that are located not only in the file system of the company, but also in other sources.

The main differences from HES version 2.0 to HES 2.2:

1. Adding a preview mode for tables, office documents, html-pages, which displays the adapted original document.

2. The search option in mail service MS Exchange.

3. The search for documents on the web by their URL – additional advanced search capabilities.

13 Frequently asked questions (FAQ)

1. I can't log into the system.

    - Select login option: log in with Windows account.

    - Try to log in, typing domain name before the username.

    - Contact your system administrator.

2. Do I have to log in to HES again, if I am already logged in with the credentials in the operating system?

    - Not necessary. When logging in - in the login window select login with Windows account.

3. I can't find the necessary document.

    - Check your right of access to this document.

    - Use "Advanced search".

    - Use filters.

    - Use query language.

4. Custom queries are not shown in the Cloud.

    - Custom queries are shown in the Cloud at random, as the Cloud has limited area.

5. I can't open documents in Desktop Manager.

    - Check if Desktop Manager is installed for this user.

    - Check if Desktop Manager is started (if not – start it manually).

    - Check the connection status Desktop Manager to HES by indicator. If it is inactive, check via the "Options" menu if the URL you entered to connect is correct.

14 Glossary

Digest – automatically formed text information, briefly describing the text. It consists of automatically generated keywords (word groups) and most information-rich sentences of the text.

Metadata – for HES it means the name of file, date of its creation and modification, size. For many formats meta tags are also available (author, type of camera, organization, etc.).

Relevance – the degree of relatedness of search results to the user's search query. The search engines use different methods for determining the relevance, which aim to match the query entered by the user. Accordingly, once sorted by relevance, the first results should be the most relevant for the user.

Suggest – drop-down list of documents, corresponding to the entered search query.

Spinner – a set of control elements, which help to increase or decrease the value in the input field using the mouse.

Tile – the minimal DataCloud functional element.

15 Support

Current information about the Hulbee Enterprise Search is available on the Web:

https://cs.swisscows.ch/.

Email for inquiries: info@hulbee.com.

If you have problems, you can get assistance from our technical support: support@hulbee.com.

Please describe your problem or report about an error or take a screenshot and send it to us as an attachment.