



Infowise Expert Search User Guide

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Introduction

Infowise Expert Search is an add-on solution for Microsoft Enterprise Search-based products (such as MOSS 2007/SharePoint Server 2010/ or MSS 2008) that creates enables visualized information discovery.

The system provides two main functionalities, fully integrated one with another:

1. **Automatically created tag cloud** of most frequently used metadata terms. The solution does not require users to perform any specific tagging, but analyzes the existing metadata behind the scenes.
2. **Expert search** allows locating and discovering experts within the organization. The system aims to provide a credible, rated list of experts in any field or on any subject by analyzing the statistical correlation between search terms and employee names. The system also incorporates feedback by users to adjust ratings based on this feedback.

The system attains its goal by analyzing data managed by the organization and calculates frequency of term occurrence and term correlation. The information is compiled by a background process and stored in an easily retrievable fashion.

Requirements

- Microsoft Office SharePoint Server 2007 or Microsoft SharePoint Server 2010
- or Microsoft Search Server 2008 (Express or Standard)
- .NET Framework 3.5
- Active Directory – forms authentication is not supported by this release.
- Optional – AJAX settings in web.config.

Installation

Solution Installation

Note: *You only need to install on one of your front-end servers*

1. Run the installation self-extracting package on one of your front end server.
2. Follow instructions on the screen.

Initial Configuration

The solution consists of two main parts:

- The Expert Search engine (Infowise Expert Search Administration)
- Presentation web parts (Infowise Expert Search Web Parts)

The web parts are enclosed in a feature, scoped to a site collection. Once activated, the feature makes the web parts available for placing on a page.

The engine is enclosed in a set of three features, scoped to Site, Site Collection and Farm. You can choose to activate one of the features, as required by your environment.

- Site feature enables Expert Search and Tagging based on data in the target site and its child sites.
- Site Collection feature enables Expert Search and Tagging based on data in the target site collection.
- Farm feature enables Expert Search and Tagging based on data in the whole farm.

Please note the following rules:

- You should only enable one feature for a specific site.
- Activating a lower level feature while a higher level feature is activated will result in an error.
- Activating a higher level feature while a lower level feature is activated will not cause an error, but the web parts will return results from the lowest level feature activated.
- You can activate the feature in unrelated sites and site collections. For example, two sibling sites may have the feature activated without any issues. Each site will present different results, as the underlying data is different.

Once a feature is activated, you will see a new link on the administration page:

- For the site feature, a new section called Infowise Expert Search will appear. Underneath it you will find a link to the administration page.
- For the site collection feature, the administration page link will appear under Site Collection Administration section.
- For the farm feature, a new section called Infowise Expert Search will appear under Applications. Underneath it you will find a link to the administration page.

The Administration page allows you to perform the following actions:

1. Set up compilation timer. The compilation timer creates tags and recalculates ratings automatically at set time for a pre-defined period of time.
2. View compilation history – list of messages created by the compilation timer
3. Use list of terms to add new term, exclude existing terms and compile a term on demand. You can also follow the link to the Term list for setting user-defined rating for terms
4. Manage a list of blocked users; users in the list will not appear in the search results.

Infowise Expert Search Administration

Compilation Timer

Start Time :

Maximum duration (hours)

Current Status:None

Compilation History

Date	Success	Error
5/31/2010 11:32:47 PM	True	

Term Management

[Infowise Tagging Terms](#)

Term	Included	LastCompiled		
MOSS	<input checked="" type="checkbox"/>	5/31/2010 11:41:54 PM	Compile	Edit
SharePoint	<input checked="" type="checkbox"/>	5/31/2010 11:42:26 PM	Compile	Edit
Visual Studio	<input checked="" type="checkbox"/>	5/31/2010 11:50:58 PM	Compile	Edit

Blocked Users

User Name	
administrator	Delete
moss	Delete
sql	Delete

Figure 1 - Administration Page

Steps to set up the system:

1. Set the start time and duration of the timed compilation. It is recommended to perform the compilation at the hours of minimal activity.
2. Optional: enter blocked users (user name without domain). Blocked users do not appear in search results. These could be application accounts or any other users.

First Compilation

It is recommended to run the first compilation interactively to analyze and adjust results as they are generated. Please note that the compilation process is quite resource demanding and should not be performed at peak hours.

- On the Administration page click on Compile Now.
- Please allow the process to finish, depending on the scope and size of your system the process may take a while (even a few hours)
- Review the results in Tagging Terms list. You may want to customize the default view to show additional columns, such as Occurrence, Usage, Include and UserRating. You may also want to sort items by Occurrence in the descending order.

- Clear Include checkbox on items you do not want to appear in results. Note: do not delete items, as they will be recreated by the next compilation.

Web Part Installation

1. Go to Site Collection Features management page of the site collection where you want the web parts to appear.
2. Activate Infowise Expert Search Web Parts feature
3. Go to page where you want the web parts to appear
4. Add web parts to the page

Permissions and Requirements

The required permissions differ depending on the scope of the feature activated. For the site and site collection feature you need to make sure:

- Your users have read/write access to the root site.
- The Timer service account has write permission to the content database.

Note: no additional impersonation is performed in these scopes, users must have enough permissions to perform the required actions, for example, to comment on an expert write permissions are required.

For the farm feature you need to make sure:

- The Timer service account has read permissions to the content databases of all site collections you want to participate in data collection.

Usage

Expert Search web part

The web part shows top experts matching the search term you entered. By clicking on the scale you can provide your own rating, which will be used in a weighted average to adjust the automatic one. You can also leave a comment regarding each person's skills.

The web part can optionally use .NET 3.5 AJAX for no-refresh results. You need to adjust your web.config file and place a ScriptManager control on your master page. Using SharePoint Designer, add the following line beneath the WebPartManager registration:

```
<asp:ScriptManager runat="server"/>
```

Please refer to the following guide for details:

<http://www.infowisesolutions.com/ajax.aspx>

Tag Cloud web part

This web part presents a tag cloud of most frequently occurring metadata values and most popular search terms used in the Expert Search system. The more a term is used, the larger the font it is shown in. You choose whether to sort the terms alphabetically or by last usage date (recent first).

You can also set a custom importance value by editing the term item in Infowise Expert Search Tagging Terms list located in the root site of the scope where the feature is activated (for the farm feature it is located inside the Central Administration site). Just set a value between 0 and 100, please note that setting 0 make the system disregard the user-defined value.

Users can click on terms to view experts and document relevant to it. For this purpose you need to point the web part to an existing search result page or create a new one. You can place the Expert Search web part on the page (together with the Core Results web part) to show experts alongside documents. Specify the location of the page in the Tag Cloud web part properties.

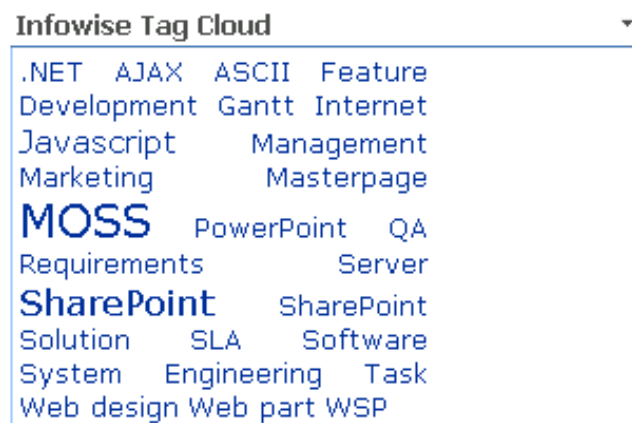


Figure 2 - Tag Cloud web part

Importance Algorithm

The term importance (and hence size of letters in the tag cloud) is calculated by the following algorithm:

- If user-defined value is different from 0, it is returned
- If either occurrence count (the number of items using the term) or usage count (the number of times the term has been searched in Expert Search) is equal to 0, the other one is returned, normalized to 100 (as a percentage of the highest value in the list)
- If both occurrence count and usage count are greater than 0, an average of normalized values is returned.

My Expertise web part

The purpose of the web part is to present the top 5 terms for you. By clicking on the scale you can provide your own rating, which will be used in a weighted average to

adjust the automatic one. You can also leave a comment to advertise your skills. Just click on the graph at the point of percentage you want to mark, optionally fill out the comment field and press “+” icon.

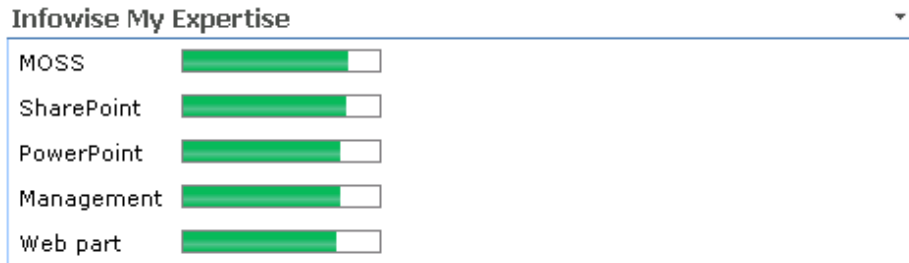


Figure 3 - My Expertise web part