



Introduction to Search in SharePoint 2013

Hands-On Lab

Lab Manual

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Introduction to Search in SharePoint 2013

Estimated time to complete this lab: **35 minutes**

Lab Objectives

This lab provides an end-to-end tour of the new SharePoint 2013 Search experience. You will start with a brief exploration of the search UI, and then move on to an introduction to content sources. You will then learn how to create a new search result source for Bing federated search. Next, you will explore and modify both the search page and results page. Finally, you will learn about modifying results using query rules.

After completing this lab, you will be better able to:

- Open content source in Central Administration and configure it for indexing
- Set up a new result source
- Modify the search page UI
- Modify the search results page by editing several of its web parts
- Explore and use query rules.

Technologies

- SharePoint 2013 Search

Audience

- SharePoint Site Administrators and SharePoint IT Professionals

Scenario

This lab takes you through a tour of the new SharePoint 2013 Search user experience with emphasis on exploring new features, configuring options, and customization of search and results.

Getting Started

Connect to the Lab Environment

Ensure you logged on to the SharePoint (SP) virtual machine as Garth Fort.

Open the Lab Environment

1. To begin the lab, on the SP virtual machine, start Internet Explorer, navigate to the demo home page at <http://intranet.contoso.com/sites/contoso>.

If required, log on to SharePoint as Garth Fort with the following credentials:

Username: **CONTOSO\GarthF**

Password: **pass@word1**

2. Warm up Web Apps:
 - a. Start in the demo home page.
 - b. In the upper navigation, click the down-arrow next to **Resources** and then click **Document Center**.
 - c. Click on a PowerPoint presentation and see it open in a Web App.

- d. Click the **back-arrow** to return to the Document Center.
 - e. Repeat steps c and d for Word and Excel documents.
Note: if you do not see a specific document type in the top view, in the left navigation click **Documents** and select from that list.
You may receive a licensing error when opening the Excel document. You can acknowledge this error; it will not affect the remainder of the lab.
 - f. In the upper navigation, click **Home** to return to the demo home page.
3. You will need to start a second session of Internet Explorer and open Central Administration before starting the lab. To do that:
 - a. From the **Start** menu, select **SharePoint 2013 Central Administration**. If you see a UAC message, click **Yes** to confirm.
 - b. If presented with a login dialog box, use the following credentials:
Username: **CONTOSO\Administrator**
Password: **pass@word1**
 4. You are now ready to proceed with Exercise 1.

Exercise 1 – Explore the Search Experience

Estimated time to complete this exercise: **5 minutes**

Scenario

In this introduction to search, you will open the search page and conduct some simple queries. You will see that in SharePoint 2013, search results go far beyond a list of items, conversations, or locations. Rather, you will see vastly improved result previews and convenient refiners and filters to quickly find what you need. You will also learn how to access rich metadata and content inside a search result—all from within the results page.

Task 1 – Search Basics In SharePoint 2013

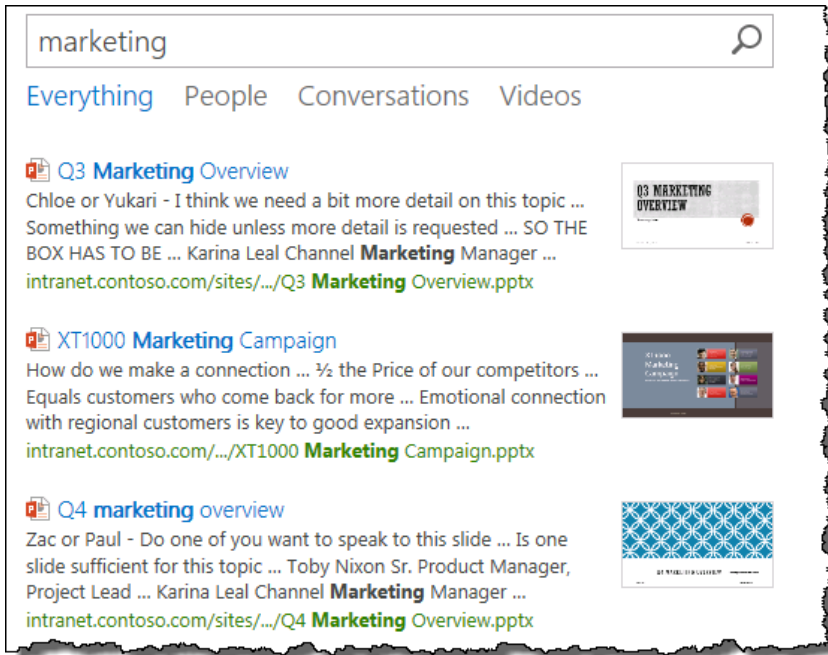
In this task, you will access the search center, conduct some simple queries, and use refiners to filter the results. Throughout this task, your search results may not exactly match the screen shots, but they should be close.

1. Ensure you are logged on to the SharePoint (SP) virtual machine as Garth Fort.
2. Start in the Internet Explorer session with the demo home page open.
3. In the top navigation, click **Search**.
4. In the search query box, type **marketing** and click the **search icon**.

Note: SharePoint 2013 Search learns from the user's search patterns and provides you with ways to find information faster than ever. You may see search suggestions and "personal favorites" that help you find results faster, and provide links to results that you have previously clicked.

5. Scroll down and view a variety of result types.

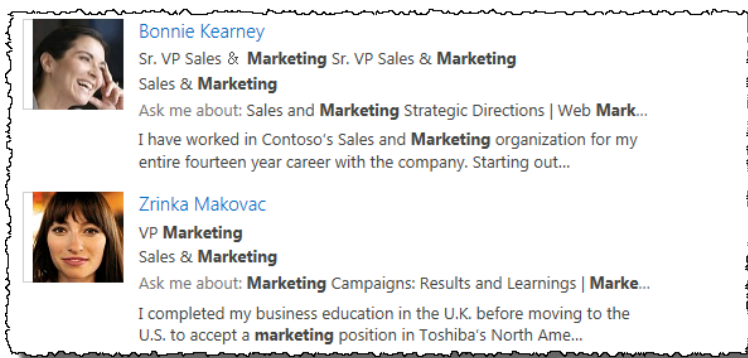
Note: If you happen to pause on a result, you will see a preview; this will be covered in more detail in the next task.



You will now use refiners and scope filters to focus your search results.

6. In the **Result type** refiner at left, click **Word** and note the filtered results.
7. In the **Author** refiner, click one of the authors and note the successive filtering by result type and author.
8. Below the search query box, in the scope refiner (Everything, People...), click **People** and note the results and refiners change accordingly.

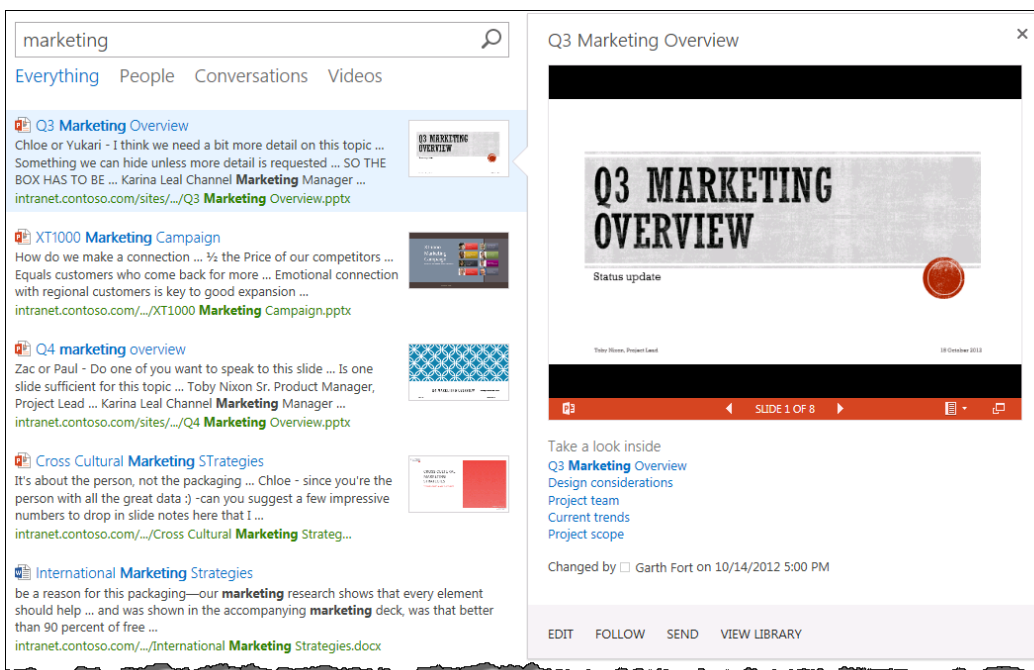
9. In the **People** results, note the bold “hits” that match the **marketing** search query.



Task 2 – Introduction to Active Preview (Hover Panels)

In this task, you will access search result previews and learn to explore and drill down into one slide of a presentation. As in the previous task, your search results may not exactly match the screen shots.

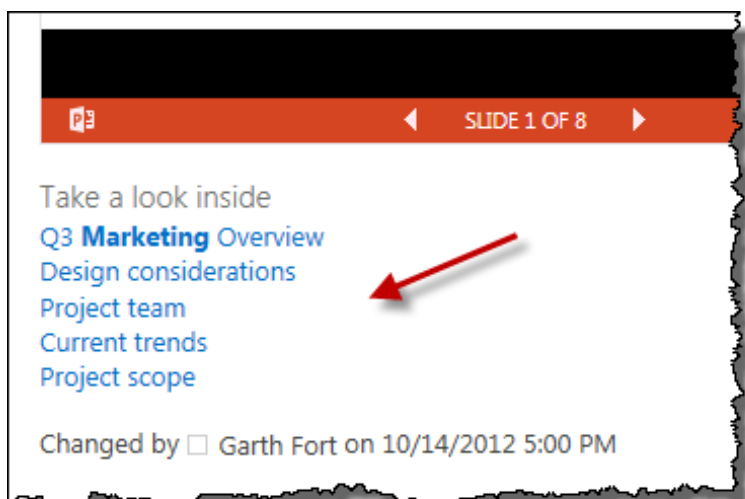
1. In the scope refiner below the search query box, click **Everything**.
2. Pause on the top **PowerPoint** result.
3. In the hover panel, note the preview.



4. Using the arrows below the preview, navigate through a few slides.

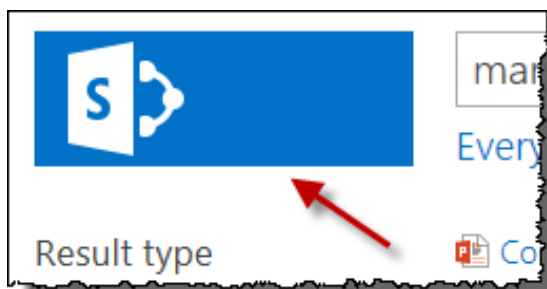
- 5.4. Note the links at the bottom of the preview to **EDIT**, **FOLLOW**, **SEND**, or **VIEW LIBRARY** (to open the library where it is located). Do **not** click any of the links at this time.

- 6.5. Below “Take a look inside”, note the “deep links” which point to individual slides in the presentation.



7-6. Click one of the links and watch the presentation open in the browser, right to the slide you selected. Close the tab when finished.

8-7. Back in the search results page, in the upper left, click the **SharePoint icon** to open a fresh search page.



In this exercise, you took a quick tour of the SharePoint 2013 Search experience. You opened the Search Center, conducted some simple queries, and used refiners to narrow down your results. You were also introduced to information and links available in search result hover panels.

Exercise 2 – Content Sources and Result Sources

Estimated time to complete this exercise: **10 minutes**

Scenario

Content sources and result sources are key components of SharePoint 2013 search. A content source refers to a collection of content (for example, SharePoint sites, site collections, or external sources) that can be crawled by the search service. A content source contains crawls settings and controls for starting a crawl.

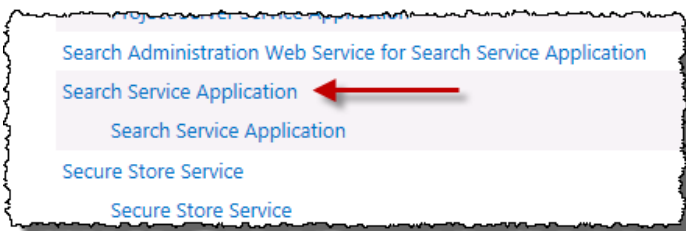
Result sources can be thought of as “containers” for search results that hold results from specific locations or are filtered by specific criteria. Unlike content sources which are defined in SharePoint Central Administration, result sources are defined in SharePoint site settings. For those familiar with SharePoint 2010 and earlier, result sources replace “search scopes” in previous SharePoint versions.

In this exercise, you will explore a simple content source and start a crawl. You will then create a new result source for federated Bing results.

Task 1 – Index a Content Source

In this task, you will open the Search Service Application, navigate to the Manage Content Sources page, and start a crawl on one of the sources. You will start in SharePoint Central Administration.




1. To Start in the correct Internet Explorer session:
 - a. Click on **Start, All Programs, Sharepoint Products** and then click **SharePoint Central Administration**.
2. Under **Application Management**, click **Manage service applications**.
3. Click the link for **Search Service Application** (*not* the proxy).





4. In the left navigation, under **Crawling**, click **Content Sources**.
Note: The list of sources may not exactly match the screen shot).

Search Service Application: Manage Content Sources

Use this page to add, edit, or delete content sources, and to manage crawls.

 [New Content Source](#) |  [Refresh](#) |  [Start all crawls](#)

Type	Name	Status	Current crawl duration	Last crawl duration	Last crawl completed	Next Full Crawl
	Local SharePoint sites	Idle		00:04:44	10/15/2012 3:00:12 PM	10/15/2012 4:00 PM
	Contoso Intranet Sites	Idle		00:03:13	10/15/2012 2:58:42 PM	10/16/2012 2:00 AM

5. Click **Contoso Intranet Sites** to open the content source.
This is the content source for sites and site collections under **http://intranet.contoso.com**.

Search Service Application: Edit Content Source

Use this page to edit a content source.

* Indicates a required field

Name

Type a name to describe this content source.

Content Source Details

This shows the current status of the Content Source.

Content Source Type: SharePoint Sites
Current Status: Idle
Continuous Crawl Status:

Last crawl type: Incremental
Last crawl began: 10/15/2012 2:55 PM
Last crawl duration: 00:03:13
Last crawl completed: 10/15/2012 2:58 PM

[View Crawl History](#)

Start Addresses

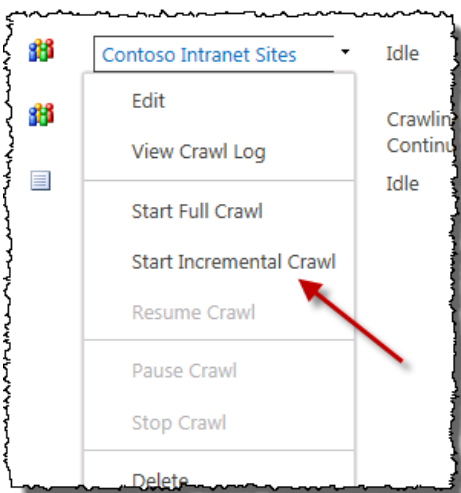
Type the URLs from which the search system should start crawling.

http://intranet.contoso.com/sites/Contoso
http://intranet.contoso.com/sites/ContosoPharm
http://intranet.contoso.com/sites/ediscovery

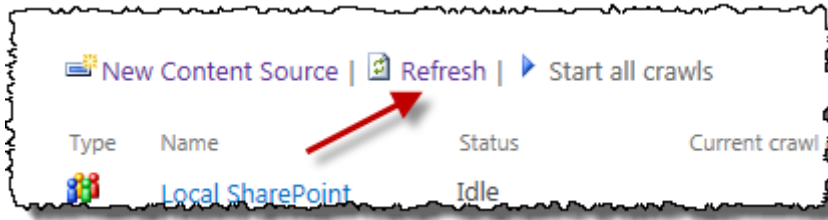
- Briefly scroll through the content source configuration page to explore the settings. Note the current status, last crawl, start addresses, crawl settings and crawl schedules.
- Click **Cancel** to close the content source window.

You will now start a crawl on the content sources to update the SharePoint search index. Because a full crawl was done previously, you will do an incremental crawl, which only re-indexes content that was changed since the last crawl. A full crawl can be re-done on a content source at any time, but it will take longer because all content will be re-indexed.

- Pause on the **Contoso Intranet Sites**, click the **down-arrow**, and in the context menu, click **Start Incremental Crawl**.



- Above the list of content sources, in the navigation, click **Refresh** every minute or so to update the status of the crawl(s).



10. When the Status indicates **Idle**, the crawl is complete.
11. At the upper left, click the **SharePoint icon** to return to Central Administration.

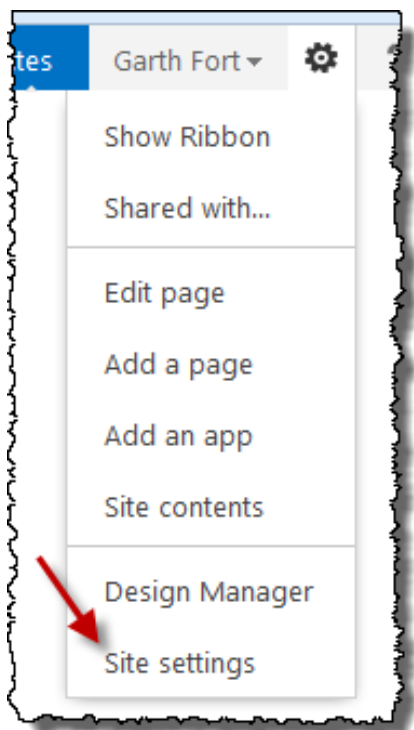
Incremental crawls on the SharePoint content for this lab typically take 2-4 minutes, but can vary with server resource availability.

Task 2 – Create a Result Source For Search Federation

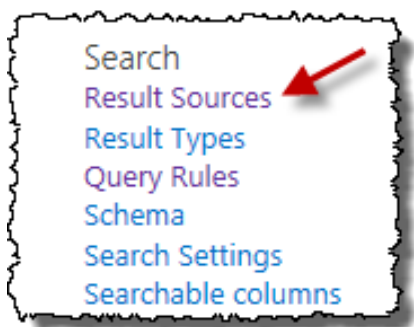
In this task, you will create and configure a special kind of SharePoint search result source for search federation. Federation enables you to combine results from SharePoint search with non-SharePoint sources. You will learn how to create a result source for Bing search, and then see how a search query works.

In order to actually display federated results, you must configure a results page to do so. Configuring the search results page is beyond the scope of this lab, but is covered in the lab entitled **HOL032 - Extending the Search Experience in SharePoint 2013**. In this lab, we provide an optional “shortcut” to viewing how a result source works in a search query.

1. Switch to the Internet Explorer session with the search page open.
2. At the upper right of the page, click **Settings** (the gear icon next to the SharePoint user name), and from the drop-down menu, click **Site Settings**.



3. Under **Search**, click **Result Sources**.

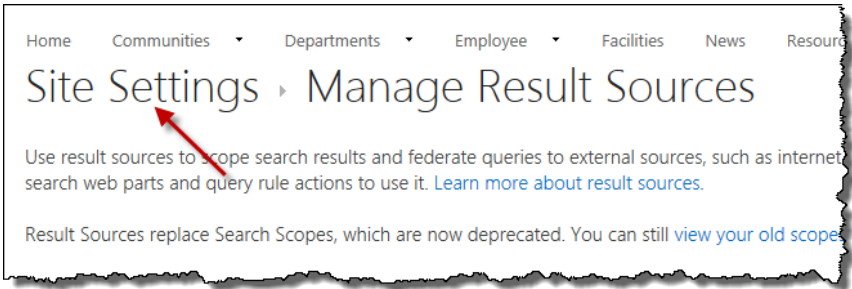


4. At the top of the sources page, click **New Result Source**.
5. Next to the headings, type information as follows:
- | | |
|--------------------------------|---|
| a. Name: | Federated Results |
| b. Description: | Leave blank |
| c. Source Information/Protocol | OpenSearch 1.0/1.1 |
| d. Query Transformation: | {searchTerms} |
| e. Source URL (for Bing): | Type in the following:
<code>http://www.bing.com/search?q={?searchterms}&format=rss&Market=en-US</code> |
| f. Credentials Information: | Anonymous |
6. At the bottom of the page, click **Save**.

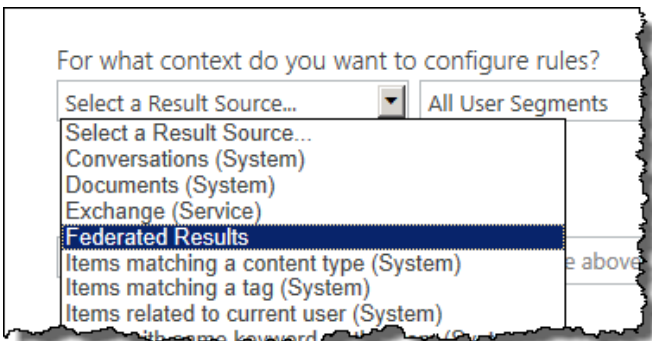
Task 3 – Optional: Use Query Builder to Retrieve Bing Results

Normally, displaying federated results requires building a web part or query rule. In this optional task, you will take a “shortcut” to seeing a query against your new Bing federated result source in action. In essence, you will start the process of creating a query rule, without completing all the steps.

- 1. At the top of the **Manage Result Sources** page, click **Site Settings**.



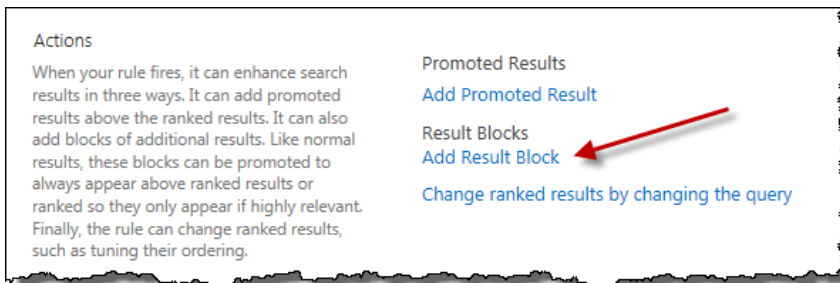
- 2. Under **Search**, click **Query Rules**.
- 3. In the **Select a Result Source...** pull-down, select **Federated Results**.



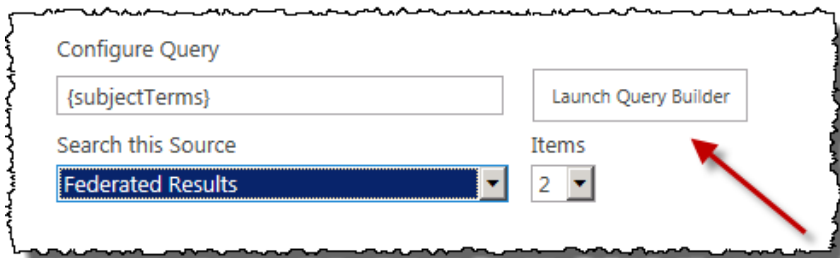
- 4. Below the menu you just used to select a source, click **New Query Rule**.



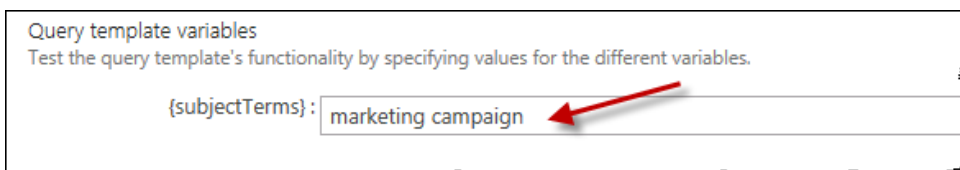
5. In the **Actions** section, under **Result Blocks**, click **Add Result Block**.



6. In the **Search this source** section, click the **down-arrow**, and then in the context menu, click **Federated Results**.
7. In the **Add Result Block** window, click **Launch Query Builder**. (Ignore any errors presented in the results box, you have not tested your query yet.)



8. In the **Build Your Query** window, in the **Select a query** area, make sure **Federated Results** appears as the default.
9. Click the **TEST** tab.
10. In the left pane, click the **Show more** link at the top.
11. In the **Query template variables** section, in the **{subjectTerms}** box, type **marketing campaign**.



12. Click **Test query**.

Build Your Query

BASICS SORTING TEST

Show less

Query template
See the query as defined in Basics or in the result source.

{subjectTerms}

Query template variables
Test the query template's functionality by specifying values for the different variables.

{subjectTerms} : marketing campaign

Query text
Queries may give different results based on dynamic page- or user-driven values. See the final query text based on the original query template, query rules, and variable values.

marketing campaign

Test query

13. Note the Bing results in the **SEARCH RESULT PREVIEW** pane.

SEARCH RESULT PREVIEW

RelevantResults (10)

- Plan Your Marketing Campaigns | Marketing M.O.
www.marketingmo.com/strategic-planning/
- Marketing Campaign Definition | Small Business Encycloped...
www.entrepreneur.com/encyclopedia/term/82444.html
- Marketing Campaigns - How To Information | eHow.com
www.ehow.com/marketing-campaigns/
- PayPal Debuts New National Marketing Campaign Featuring A...
techcrunch.com/2012/10/15/
- 5 Step Internet Marketing Plan - Small Business Canada - ...
sbinfoCanada.about.com/od/a/netcampaignpp.htm
- PayPal Taps Jeff Goldblum for First Ever National Marketi...
www.webpronews.com/paypal-taps-jeff-goldblum-for-fir...
- Marketing - Wikipedia, the free encyclopedia

The Query Builder, which you will also use in other search-related labs, is a convenient tool for viewing how the result source and query works “behind the scenes”. We will now close all the windows used in this optional section.

14. Click **Cancel** to close the **Build Your Query** window.
15. Click **Cancel** to close the **Add Result Block** window.
16. Click **Cancel** (at the lower right) to close the **Add Query Rule** window.
17. Close the **Manage Query Rules** tab.

As a reminder, configuring the search results page to display federated results is beyond the scope of this lab, but is covered in **SES-H207 - Extending the Search Experience in SharePoint 2013**.

By completing this exercise, you learned about content sources and result sources. In Central Administration, you learned how to open and explore a content source and how to update the search

index by starting a crawl. You then learned how to create a new result source for Bing search. Finally, in an optional task, you used Query Builder to run a query against that source and saw results from the Bing search engine.

Exercise 3 – Customize the User Experience

Estimated time to complete this exercise: **15 minutes**

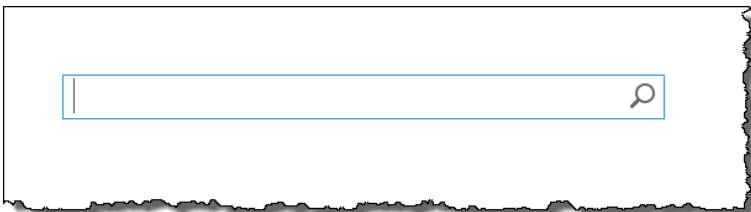
Scenario

We now turn to a more detailed look at the user experience. Users interact with SharePoint Search primarily through two web pages: the search page (also referred to as the “Search Center”) and the results page. These pages are highly configurable. In this exercise, you will learn to modify the search page by editing a web part that governs its features and appearance.

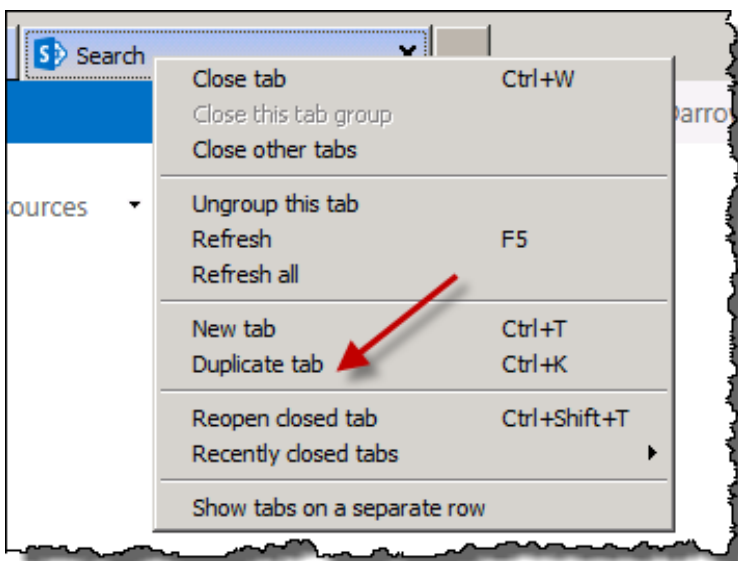
Task 1 – Add New Controls to the Search Page

In this task, you will learn to customize the search page by adding some out-of-the-box controls and links to the **Search Box** web part.

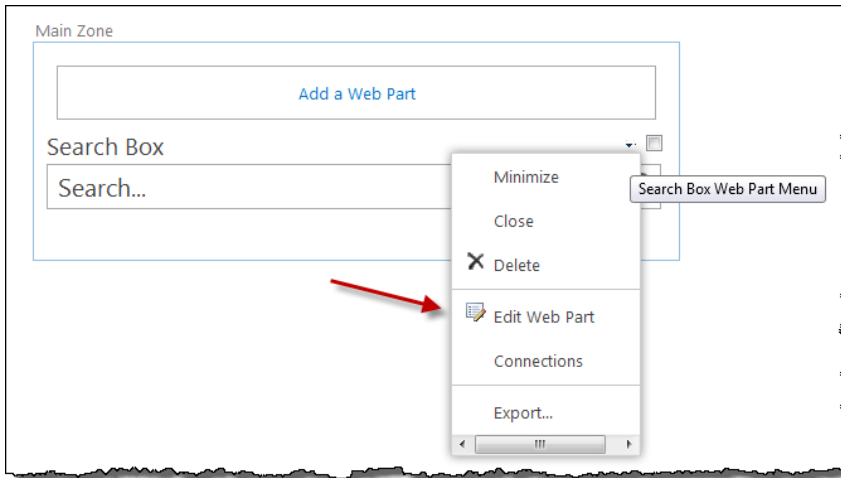
1. Start in the Search page. You may have results from a previous search query.
2. At the upper left, click the **SharePoint icon** to open a fresh search page.



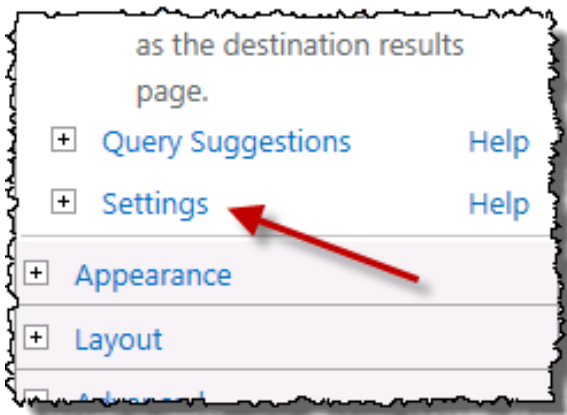
3. Right-click the **Search** tab, and then click **Duplicate tab**. You should now have two identical search pages open.



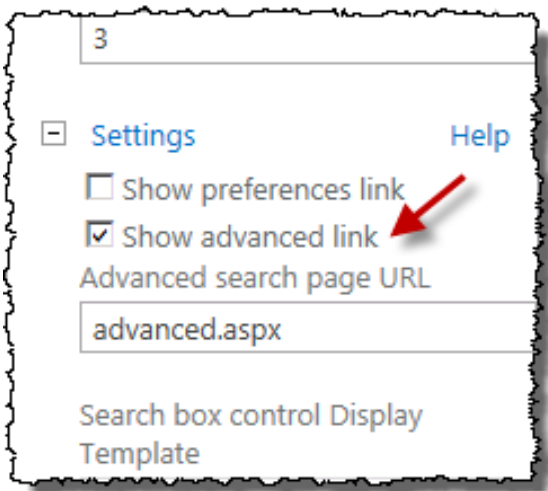
- Click **Settings** (the gear icon next to the SharePoint user name) and from the drop-down menu, click **Edit Page**.
- Pause on and click the drop-down menu next to the **Search Box** web part and select **Edit Web Part**.



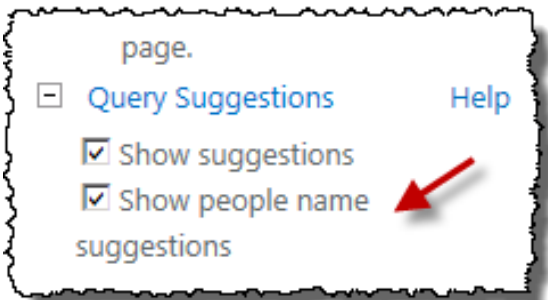
- In the web part editor at the right of the page, click the radio button next to **Turn on the drop-down Search Navigation menu...** The button **Send queries to other Web Parts on this page** will clear.
- Still in the Search Box web part editor, expand **Settings**.



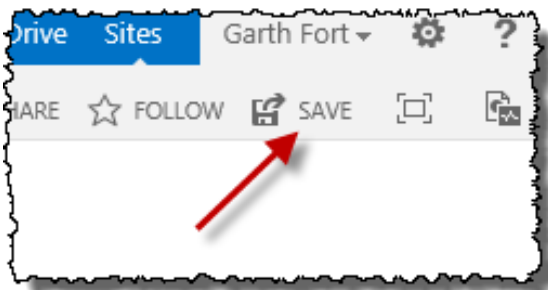
8. Check the **Show advanced** link.



9. Expand **Query Suggestions**.
10. Check **Show people name suggestions**.

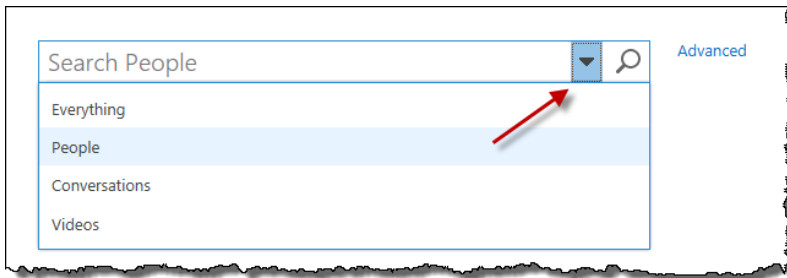


11. Click **OK** to close the web part editor.
12. At the upper right of the page, click **Save**. The page editor will close. You will see a “Check it in” reminder at the top; do **not** check in the page at this time.



13. Compare the modified search page with the original by switching between the two **Search** tabs.
14. Note the **Advanced** link in the modified page.

15. In the modified page, click the down-arrow at the right of the search box to see the scope picker; and then click **People**.



Modified



Original

16. Close the original search page tab, keeping the modified page open.

Task 2 – Use the New Controls

Having added some custom controls to the basic search box, you will now use them to enhance the search experience.

1. Start in the modified search page (see above screen shot).

You will now use the “**Advanced**” search options to carry out a more complex search query.

2. At the right of the search query box, click the **Advanced** link.
3. In the **All of these words:** box, type **marketing**.
4. In the **Property restrictions**, click the drop-down arrows and select the following:
 - a. **Last Modified By**
 - b. **Contains**
 - c. (type the name) **Davis**

Find documents that have...

All of these words:

The exact phrase:

Any of these words:

None of these words:

Only the language(s): ☐ English
☐ French
☐ German
☐ Japanese
☐ Simplified Chinese
☐ Spanish
☐ Traditional Chinese

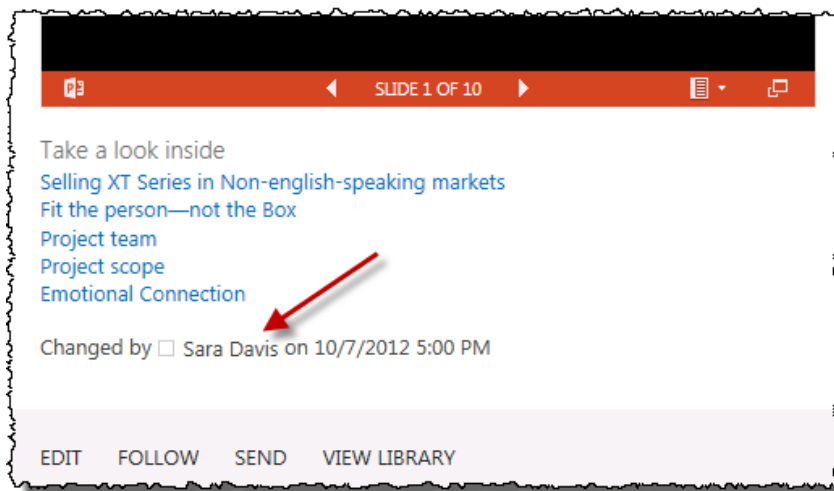
Result type:

Add property restrictions...

Where the Property...

Improve your searches with [search tips](#)

5. Click **Search**.
6. Pause on top PowerPoint search result and note the properties, specifically that **Changed by** property is Sara Davis.

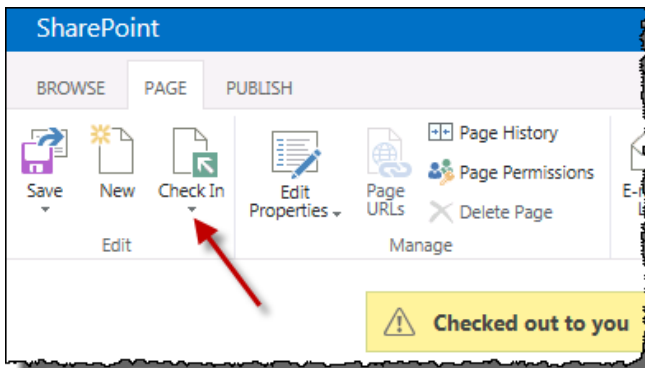


The **Advanced Search** features enabled you to return only results authored by Sara Davis. This is a rather simple example; very powerful search queries can be done using Advanced search.

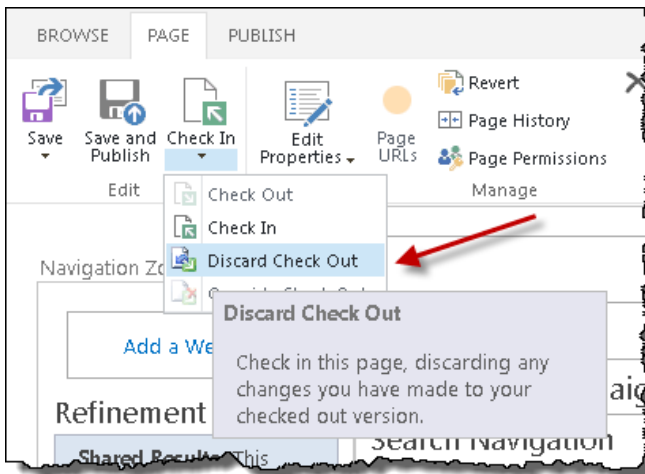
You will now reverse the changes you made to the search page before moving on with the rest of the lab.

7. Click the **SharePoint icon** to return to the search page.

8. In the (modified) search page, click **Settings** (the gear icon next to the SharePoint user name) and from the drop-down menu, select **Edit Page**.
9. In the ribbon, click the **down-arrow** below **Check In** (do not click **Check In**).



10. In the context menu, click **Discard Check Out** and then click **OK** to confirm.



By completing this exercise, you learned how to make some simple changes to the look and feel of the search page. You added some controls and links to the search page to make it more powerful. Finally, you put those controls to use in an example.

Exercise 4 – Introduction to Query Rules

Estimated time to complete this exercise: **5 minutes**

Scenario

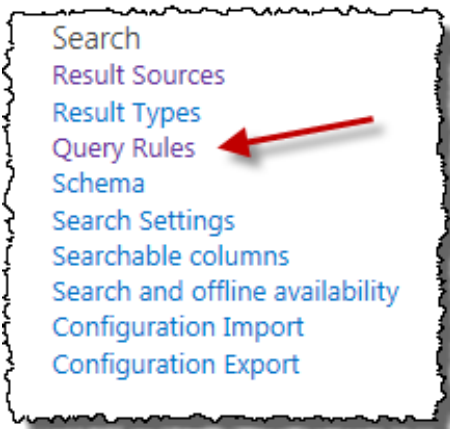
Thus far, you covered some fundamental search concepts (content types and result sources), and you learned how to make simple modifications to the search UI. We will now briefly explore a new feature in SharePoint 2013 Search: query rules.

Query rules enable you to customize search results by promoting specific types or classes of results (that is, bring them nearer to the top of the list). For example, a team that often works with presentations might wish to have PowerPoint files consistently appear near the top of the list. Building a custom query rule is beyond the scope of this lab; however, you will learn a lot by exploring and activating a pre-existing query rule. You will then conduct a search to see the rule in action.

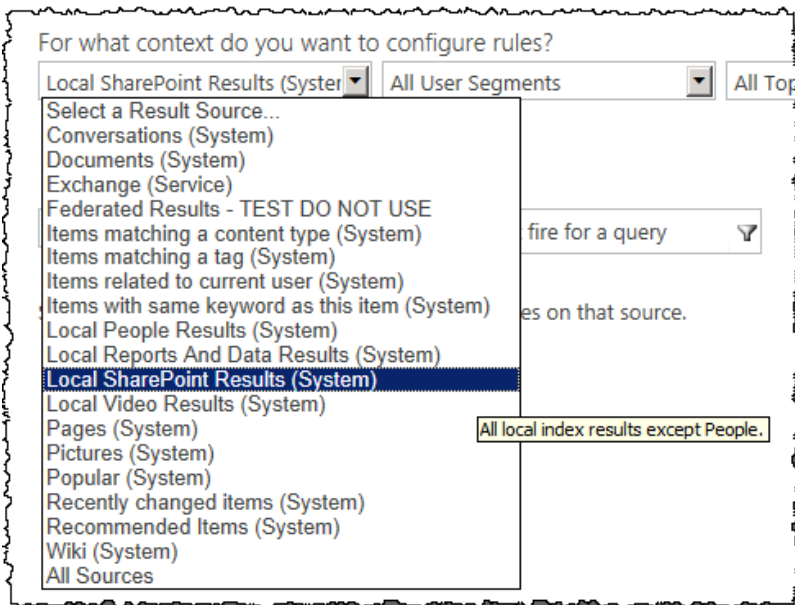
Task 1 – Overview of Query Rules: Conditions and Actions

In this task, you will learn to identify the principal components of a query rule: conditions and actions.

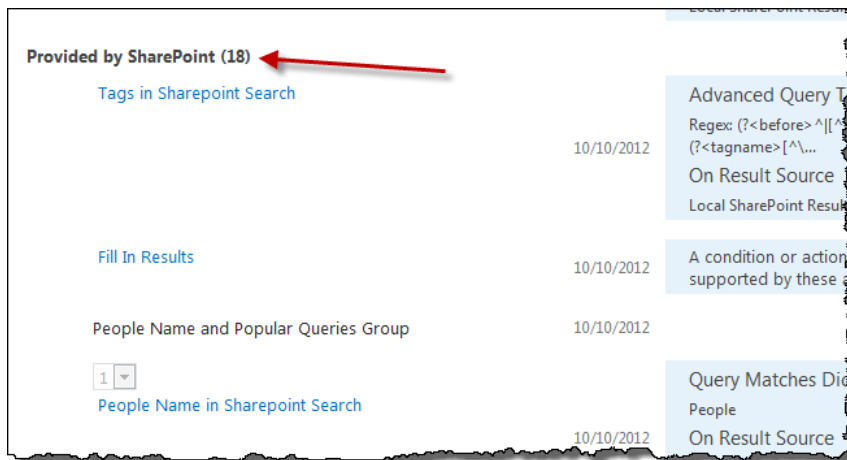
1. Start in a fresh search page from the previous exercise
2. Click **Settings** (the gear icon next to the SharePoint user name), and from the drop-down menu, select **Site Settings**.
3. Under **Search**, click **Query Rules**.



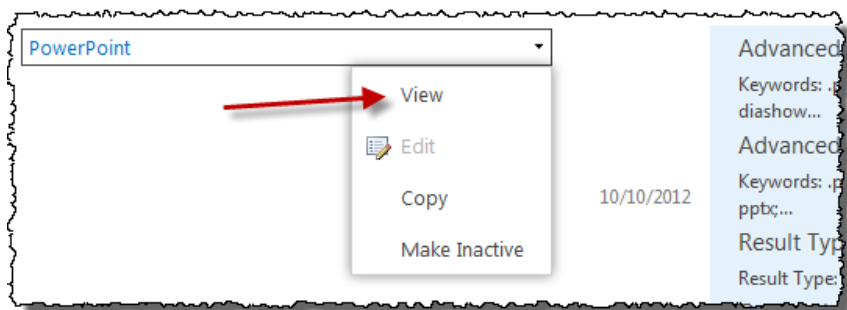
4. In the “**Select a Result Source...**” pull-down, select **Local SharePoint Results (System)**.



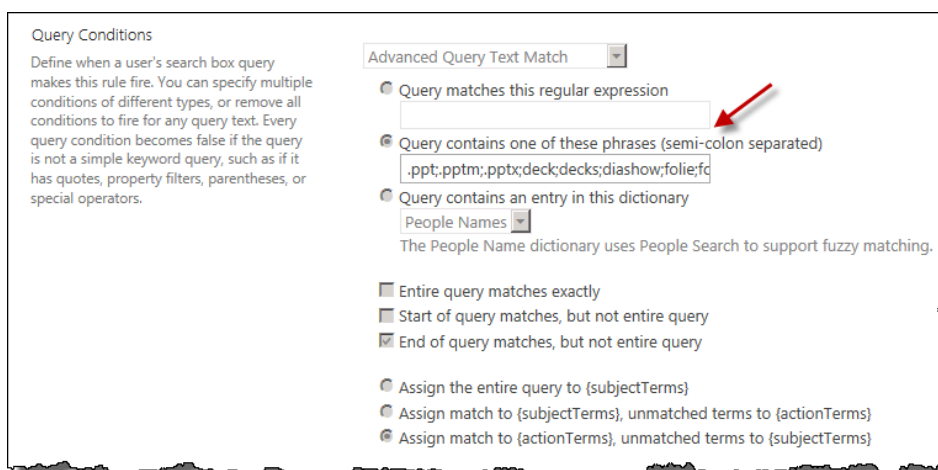
5. You will see a list of query rules, beginning with the heading **Defined for this site**. Scroll down until you see the heading **Provided by SharePoint**.



6. Scroll down further (about 10-15 rules), until you locate the query rule **PowerPoint**.
7. Click the rule **PowerPoint**, and then click **View**.



8. Briefly note the **Query Conditions** under which the query rule will fire. If you wish to explore the conditions in more detail, complete the next (optional) step.



9. **Optional deep dive:** Under **Query Conditions**, review the conditions that cause the rule to fire. Note they are connected by logical OR statements, so any of them will cause it to fire.

- a. **First condition:** the query contains one of the phrases shown, and the end of the query matches.
 - i. Assign match to Action terms, unmatched terms to Subject terms.
 - ii. **Action** terms (for example “.ppt”, “deck”) cause the query rule to fire, and the remaining search terms are assigned to **Subject terms**.

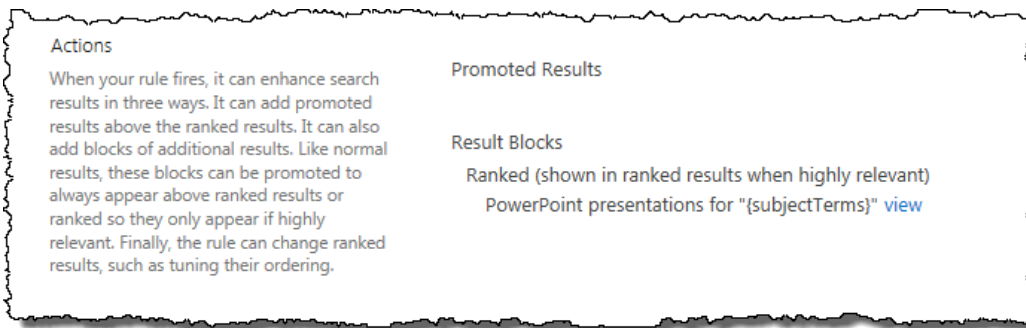
OR

- b. **Second condition:** the query contains one of the phrases shown and the start of the query matches, but not the entire query.
 - i. Same assignment to Action terms as above.

OR

- c. **Third condition:** Microsoft PowerPoint is a result type commonly clicked in search results.
 - i. This is an example of adaptive learning, a new feature in SharePoint 2013 Search.

10. Scroll down, and under **Actions**, note there will be a result block labeled **PowerPoint presentations for “subjectTerms”**.



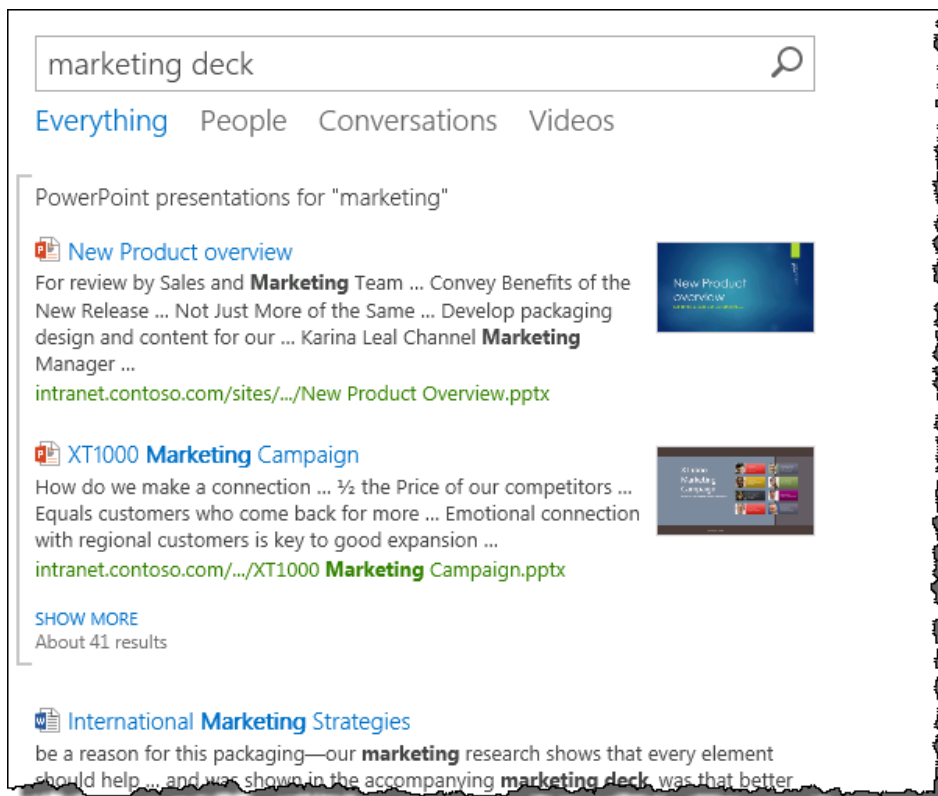
11. Click **OK** to return to the **Manage Query Rules** page.

Task 2 – Show a Query Rule

Having learned how a query rule works, in this task you will see it work.

1. In the upper left, click the **SharePoint icon** to open a fresh search page.

2. In the query box, type **marketing deck** and click the **search icon**.
3. Note the result block at the top of the list.



4. Note the following:
 - a. The **action term** “deck” is removed from the query by the rule, so that items in the result block contain “marketing” but not “marketing deck”.
 - b. Below the result block are the “core” results, which may or may not include the entire query phrase “marketing deck”.
 - c. You get the same result block using any of the action terms defined in the rule, for example “marketing **ppt**” or “marketing **presentation**”. The core results generally vary if you change the query terms.

By completing this exercise, you learned the basics of how a query rule is structured, explored conditions and actions, and then you saw the rule in action. Although this was a brief introduction, you can see that query rules are very powerful tools for promoting search results that might otherwise be deep within a result list. Further details on customizing query rules can be found in the lab **HOL034 – Exploring Search Query Rules in SharePoint 2013**.

Summary

In this hands-on lab, you were introduced to the new Search engine and UI in SharePoint 2013, with emphasis on new and extended features. Specifically, you learned to:

- Identify and open a content source in Central Administration and configure it for indexing.
- Set up a new result source for Bing federated results.
- In an optional task, used Query Builder, see how the source works to retrieve Bing results.
- Edit the search page and modify the UI by editing a web part.
- Explore how query rules are defined.
- See a query rule in action.