

Schema Tabular Documentation for the Bing Search API

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# Introduction

You can use the Bing Search API to get search results in six categories, *Web*, *Image*, *Video*, *News*, *Related Search*, and *Spelling Suggestions*. You can request one or multiple categories in a single query. A search category is also known as a *service operation*.

This document provides the following information about each service operation:

* The service URI
* Input parameters and their options
* Results

**Note:** The Bing Search service supports fixed queries. Some queries might include required input parameters. For more information about query types, see [Fixed and Flexible Query Types](http://go.microsoft.com/fwlink/?LinkID=201299) on MSDN.

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# Service URI

The service root URIs for each of the Bing Search API subscription types are shown in the following table.

|  |  |
| --- | --- |
| **Subscription type** | **Service root URI** |
| Bing Search API | <https://api.datamarket.azure.com/Bing/Search/> |
| Bing Search API - Web Results Only | <https://api.datamarket.azure.com/Bing/SearchWeb/> |

The full service URI is expressed using elements of the OData specification. Some notes:

* You’ll need to place your query text (and other string parameters) inside single quotation marks. Because single quotation marks need to be URL encoded before being used in a web request, you’ll want to use the encoded equivalent (%27) instead. For example:

https://api.datamarket.azure.com/Bing/SearchWeb/Web?Query=%27Xbox%27

It is best to URL encode the entire query text, including the quotation marks that surround it. For example:

https://api.datamarket.azure.com/Bing/Search/Web?Query=%27New+Xbox+Games%27

This way, if you’ve got any characters in your query that require URL encoding (such as spaces), they’ll be properly handled as well.

* You can use the parameters in the following table to specify the number of results you want, where to start in the result set (that is, pagination), and the result format.

| **Parameter** | **Description** |
| --- | --- |
| $top | Specifies the number of results to return. The default is 50 for Web, Image, and Video searches, 15 for News. |
| Example:  https://api.datamarket.azure.com/Bing/Search/Web?Query=%27Xbox%27&$top=10 | |
| $skip | Specifies the starting point offset for the results. The default is zero. |
| Example:  https://api.datamarket.azure.com/Bing/Search/Web?Query=%27Xbox%27&skip=20 | |
| $format | Specifies the format of the OData response. Current options are Atom (for XML) or JSON. Default: Atom |
| Example:  https://api.datamarket.azure.com/Bing/Search/Web?Query='Xbox'&$format=json | |

For more information about OData, visit the [OData website](http://www.odata.org).

**Notes:** You don’t need to enclose the values of the OData parameters in single quotation marks ('), nor URL encode them. However, you do need to do this for all other string parameter values, such as *Market*, *Sources*, *ImageFilters*, *Options*, and other parameters.

The Bing Search API supports HTTP compression to reduce transfer size. To enable HTTP compression, add header “*Accept-Encoding: gzip*” to your HTTP request.

# Service operations

A service operation is the data source that is targeted for the Bing Search API results.

To target a particular service operation, append it to your service root URI. For instance, if you want image results, append the service operation *Image* to your service URI as follows:

https://api.datamarket.azure.com/Bing/Search/Image

The service operations available on the Bing Search API Marketplace are listed in the following table. Service operation names are case-sensitive.

| **Service Operation / Example** |
| --- |
| Web  https://api.datamarket.azure.com/Bing/Search/Web?Query=%27Xbox%27 |
| Image  https://api.datamarket.azure.com/Bing/Search/Image?Query=%27Xbox%27 |
| Video  https://api.datamarket.azure.com/Bing/Search/Video?Query=%27Xbox%27 |
| News  https://api.datamarket.azure.com/Bing/Search/News?Query=%27Xbox%27 |
| SpellingSuggestion  https://api.datamarket.azure.com/Bing/Search/SpellingSuggestion?Query=%27Xbox%27 |
| RelatedSearch  https://api.datamarket.azure.com/Bing/Search/RelatedSearch?Query=%27Xbox%27 |
| Composite  https://api.datamarket.azure.com/Bing/Search/Composite?Sources=%27Web%2BNews%27&Query=%27Xbox%27 |

## Multiple service operations

To target multiple service operations in a single query, use the *Composite* service operation followed by its required parameter *Sources*. Make the value of *Sources* the names of the service operations concatenated with a plus (+) character. For example, to get results about Xbox from both web and news sources simultaneously:

https://api.datamarket.azure.com/Bing/Search/Composite?Sources=%27Web%2BNews%27&Query=%27Xbox%27

**Exception:** When you request a spelling suggestion as part of a composite query, you need to use the service operation *Spell* instead of *SpellingSuggestion*. Example:

https://api.datamarket.azure.com/Bing/Search/Composite?Sources=%27Web%2BSpell%27 &Query=%27San+Fernado%27

Notice that the value of the *Sources* parameter is surrounded by single quotation marks, which have been URL-encoded along with the rest of the string. This requirement applies to all string parameter values.

Also note that the number of results returned with the OData reserved parameter $top refers to all data sources specified in the query except News. News will always return a fixed number of 15 news results when you use it in a composite query.

# Bing Search API Data: input parameters and results

The following section describes input parameters you can use with the Bing Search API. It also describes the results of each service operation.

## Input parameters applicable to all service operations

The following table shows the input parameters you can use with any service operation.

**Note:** Parameter *Query* is the only required parameter. All other parameters, including those specific to a particular service operation, are optional.

| **Name** | **Type** | **Sample values** | **Description** |
| --- | --- | --- | --- |
| *Query* | String | xbox | Bing search query. The query can contain any valid query text that the Bing Engine supports. |
| *Adult* | String | Moderate | Setting used for filtering sexually explicit content.  Not specifying the level of filtering means that the API will use the default level for a particular market, which may vary per market. In addition, for certain markets, the level should not be lower than the predefined value for that market. For example, in the de-DE market, the level is always set to **Strict**.  For more information about the levels for this parameter, see Adult. |
| *Latitude* | Double | 47.603450 | Latitude (north/south coordinate).  Valid input values range from –90 to 90. |
| *Longitude* | Double | -122.329696 | Longitude (east/west coordinate).  Valid input values range from –180 to 180. |
| *Market* | String | en-US | Market.  If the parameter is not specified, the API attempts to determine an applicable market through the use of logic such as the IP address of the request, cookies, and other elements.  For a list of the markets, see Market.  **Note:** Not all service operations support all markets. |
| *Options* | String | EnableHighlighting | Specifies general options for the query. Fore more information, see [Options](#_Options). |

## Web service operation

The following section describes input parameters and results for the *Web* service operation.

### Input parameters

The following table shows the optional input parameters you can use for the *Web* service operation. You can use these in addition to the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

| **Name** | **Type** | **Sample values** | **Description** |
| --- | --- | --- | --- |
| *WebFileType* | String | XLS | A file name extension for the type of files to return. This parameter accepts only one file name extension.  For a list of values for supported file name extensions, see WebFileType. |
| *WebOptions* | String | DisableQueryAlterations | Specifies options for a web request. For more information, see [WebOptions](#_WebOptions). |

### Results

The following table lists results for the *Web* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Title** | String | Text specified in the HTML <title> tag of the page |
| **Description** | String | Description text of the web result |
| **DisplayUrl** | String | Web URL to display to the user |
| **Url** | String | Full URL of the web result |

## Image service operation

The following section describes input parameters and results for the *Image* service operation.

### Input parameters

The following table shows the optional input parameters you can use for the *Image* service operation. You can use these in addition to the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

| **Name** | **Type** | **Sample values** | **Description** |
| --- | --- | --- | --- |
| *ImageFilters* | String | Size:Small | Array of strings that filter the response that the API sends based on size, aspect, color, style, face, or any combination thereof.  For a list of values for this parameter, see ImageFilters. |

### Results

The following table lists results for the *Image* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Title** | String | Title of the image |
| **MediaUrl** | String | URL of the full-size image |
| **SourceUrl** | String | URL of the website that contains a returned image |
| **DisplayUrl** | String | URL that is displayed on the search results page |
| **Width** | Int32 | Width of the full-size image, in pixels, if available |
| **Height** | Int32 | Height of the full-size image, in pixels, if available |
| **FileSize** | Int64 | Size of the full-size image file, in bytes, if available |
| **ContentType** | String | MIME type of an image, if available |
| **Thumbnail** | Thumbnail | Thumbnail properties of the multimedia element |

## Video service operation

The following section describes input parameters and results for the *Video* service operation.

### Input parameters

The following table shows the optional input parameters you can use for the *Video* service operation. You can use these in addition to the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

| **Name** | **Type** | **Sample values** | **Description** |
| --- | --- | --- | --- |
| *VideoFilters* | String | Duration:Short | Array of strings that filter the response that the API sends based on duration, aspect, resolution, or any combination thereof.  In the query URL, you use a plus sign (+) to indicate multiple filters. For example:  **videofilters=Aspect:Standard+Duration:Short**  For a list of the values for this parameter, see VideoFilters.  **Note:** You cannot include more than one value for duration in the same request. |
| *VideoSortBy* | String | Date | Sort order of results.  For more information, see VideoSortBy. |

### Results

The following table lists results for the *Video* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Title** | String | Source of the video |
| **MediaUrl** | String | URL of the original video |
| **DisplayUrl** | String | URL of this video from the Bing Video page |
| **RunTime** | Int32 | Playback length of the video, in milliseconds, if available |
| **Thumbnail** | Thumbnail | Thumbnail properties of the multimedia element |

## News service operation

The following section describes input parameters and results for the *News* service operation.

### Input parameters

The following table shows the optional input parameters you can use for the *News* service operation. You can use these in addition to the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

| **Name** | **Sample values** | **Type** | **Description** |
| --- | --- | --- | --- |
| *NewsCategory* | rt\_Business | String | Category of news for which to provide results.  If no results match the input provided for this parameter, Bing returns the default set of results, which is news from a mix of categories.  Applicable only in the en-US market.  For a list of the valid values, see NewsCategory. |
| *NewsLocationOverride* | US.WA | String | Overrides Bing location detection. Applicable only in the en-US market. |
| *NewsSortBy* | Date | String | Sort order of results.  For more information, see NewsSortBy. |

### Results

The following table lists results for the *News* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Title** | String | Headline for this result |
| **Url** | String | URL of this article |
| **Source** | String | Organization responsible for this article |
| **Description** | String | Representative sample of this result |
| **Date** | DateTime | Date on which this article was indexed |

## RelatedSearch service operation

The following section describes input parameters and results for the *RelatedSearch* service operation.

### Input parameters

There are no parameters that are specific to the *RelatedSearch* service operation. Use the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

### Results

The following table lists results for the *RelatedSearch* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Title** | String | Title of the related resource |
| **BingUrl** | String | URL of the related resource |

## SpellingSuggestions service operation

The following section describes input parameters and results for the *SpellingSuggestions* service operation.

### Input parameters

There are no parameters that are specific to the *SpellingSuggestions* service operation. Use the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

### Results

The following table lists results for the *SpellingSuggestions* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Value** | String | The corrected spelling |

# Bing Search API Data - Web Results Only: input parameters and results

The following section describes input parameters you can use with the Bing Search API – Web Results Only and describes the results of the *Web* service operation.

## Web service operation

The following section describes input parameters and results for the *Web* service operation.

### Input parameters

The following table shows the optional input parameters you can use for the *Web* service operation. You can use these in addition to the parameters shown in [Input parameters applicable to all service operations](#_Input_parameters_applicable).

| **Name** | **Type** | **Sample values** | **Description** |
| --- | --- | --- | --- |
| *WebFileType* | String | XLS | A file name extension for the type of files to return. This parameter accepts only one file name extension.  For a list of values for supported file name extensions, see WebFileType. |

### Results

The following table lists results for the *Web* service operation.

| **Name** | **Type** | **Description** |
| --- | --- | --- |
| **ID** | Guid | Identifier |
| **Title** | String | Text specified in the HTML <title> tag of the page |
| **Description** | String | Description text of the web result |
| **DisplayUrl** | String | Web URL to display to the user |
| **Url** | String | Full URL of the web result |

# Options for input parameters

The following sections describe members and values that you can use to customize input parameters.

## Options

Values of the *Options* parameter specify general options for the query.

| **Value** | **Description** |
| --- | --- |
| **DisableLocationDetection** | Prevents Bing from inferring location from the terms of a query. |
| **EnableHighlighting** | Bing will use a special character to identify the beginning and the end of a query term that appears in results. For more information, see [Hit Highlighting](http://msdn.microsoft.com/en-us/library/gg447081) on the MSDN website. |

You can specify multiple options by concatenating the options with a plus(+) sign. Example:

Options='EnableHighlighting+DisableLocationDetection'

Remember to URL-encode before appending to your query string.

## WebOptions

Values of the *WebOptions* parameter specify options for a web request.

| **Value** | **Description** |
| --- | --- |
| **DisableHostCollapsing** | Prevents Bing from suppressing results from the same top-level URL for a request. |
| **DisableQueryAlterations** | Prevents Bing from altering the query string. Such alteration may have been done to correct apparent spelling error in the original query string. |

You can specify multiple options by concatenating the options with a plus(+) sign. Example:

WebOptions='DisableQueryAlterations+DisableHostCollapsing'

Remember to URL-encode before appending to your query string.

## Adult

Values of the *Adult* parameter specify the level of adult content filtering used in the query.

| **Value** | **Description** |
| --- | --- |
| **Off** | Filtering is not used in a query. |
| **Moderate** | Results of a query should not include sexually explicit images or videos, but can include sexually explicit text. |
| **Strict** | Results of a query should not include sexually explicit text, images, or videos. |

## ImageFilters

Values of the *ImageFilters* parameter restrict results.

| **Value** | **Restricts image results by** |
| --- | --- |
| Size:Small | Small size. |
| Size:Medium | Medium size. |
| Size:Large | Large size. |
| Size:Height:*<Height>* | Height in pixels, where *<Height>* is an unsigned int value. |
| Size:Width:*<Width>* | Width in pixels, where *<Width>* is an unsigned int value. |
| Aspect:Square | Standard aspect ratio. |
| Aspect:Wide | Widescreen aspect ratio. |
| Aspect:Tall | Tall aspect ratio. |
| Color:Color | Color images. |
| Color:Monochrome | Black and white images. |
| Style:Photo | Photos. |
| Style:Graphics | Graphics or illustrations. |
| Face:Face | Faces. |
| Face:Portrait | Portraits (head and shoulders). |
| Face:Other | Other **Face** categories. |

## Market

Values of the *Market* parameter indicate languages and countries/regions.

**Note**: Not all Service Operations support all markets.

| **Market ID** | **Language** | **Country/region** |
| --- | --- | --- |
| ar-XA | Arabic | Saudi Arabia |
| bg-BG | Bulgarian | Bulgaria |
| cs-CZ | Czech | Czech Republic |
| da-DK | Danish | Denmark |
| de-AT | German | Austria |
| de-CH | German | Switzerland |
| de-DE | German | Germany |
| el-GR | Greek | Greece |
| en-AU | English | Australia |
| en-CA | English | Canada |
| en-GB | English | United Kingdom |
| en-ID | English | Indonesia |
| en-IE | English | Ireland |
| en-IN | English | India |
| en-MY | English | Malaysia |
| en-NZ | English | New Zealand |
| en-PH | English | Philippines |
| en-SG | English | Singapore |
| en-US | English | United States |
| en-XA | English | Saudi Arabia |
| en-ZA | English | South Africa |
| es-AR | Spanish | Argentina |
| es-CL | Spanish | Chile |
| es-ES | Spanish | Spain |
| es-MX | Spanish | Mexico |
| es-US | Spanish | United States |
| es-XL | Spanish | Latin America |
| et-EE | Estonian | Estonia |
| fi-FI | Finnish | Finland |
| fr-BE | French | Belgium |
| fr-CA | French | Canada |
| fr-CH | French | Switzerland |
| fr-FR | French | France |
| he-IL | Hebrew | Israel |
| hr-HR | Croatian | Croatia |
| hu-HU | Hungarian | Hungary |
| it-IT | Italian | Italy |
| ja-JP | Japanese | Japan |
| ko-KR | Korean | Korea |
| lt-LT | Lithuanian | Lithuania |
| lv-LV | Latvian | Latvia |
| nb-NO | Norwegian | Norway |
| nl-BE | Dutch | Belgium |
| nl-NL | Dutch | Netherlands |
| pl-PL | Polish | Poland |
| pt-BR | Portuguese | Brazil |
| pt-PT | Portuguese | Portugal |
| ro-RO | Romanian | Romania |
| ru-RU | Russian | Russia |
| sk-SK | Slovak | Slovakia |
| sl-SI | Slovenian | Slovenia |
| sv-SE | Swedish | Sweden |
| th-TH | Thai | Thailand |
| tr-TR | Turkish | Turkey |
| uk-UA | Ukrainian | Ukraine |
| zh-CN | Simplified Chinese | China |
| zh-HK | Traditional Chinese | Hong Kong SAR |
| zh-TW | Traditional Chinese | Taiwan |

## NewsCategory

Valid values for the *NewsCategory* parameter include:

* rt\_Business
* rt\_Entertainment
* rt\_Health
* rt\_Politics
* rt\_Sports
* rt\_US
* rt\_World
* rt\_ScienceAndTechnology

## NewsSortBy

Values of the *NewsSortBy* parameter affect the sort order of news results.

| **Value** | **Description** |
| --- | --- |
| **Date** | News results are sorted in chronological order. |
| **Relevance** | News results are sorted by relevance of to the query. |

## VideoFilters

Values of the *VideoFilters* parameter restrict results.

| **Value** | **Restricts video results by** |
| --- | --- |
| Duration:Short | Runtime of less than 300 seconds. |
| Duration:Medium | Runtime of between 300 seconds and 12,000 seconds. |
| Duration:Long | Runtime of greater than 12,000 seconds. |
| Aspect:Standard | Standard aspect ratio. |
| Aspect:Widescreen | Widescreen aspect ratio. |
| Resolution:Low | Low resolution. |
| Resolution:Medium | Medium resolution. |
| Resolution:High | High resolution. |

## VideoSortBy

Values of the *VideoSortBy* parameter affect the sort order of video results.

| **Value** | **Description** |
| --- | --- |
| **Date** | Video results are sorted in chronological order. |
| **Relevance** | Video results are sorted by relevance to the query. |

## WebFileType

Values of the *WebFileType* parameter filter results by supported file name extensions.

| **Value** | **File type** |
| --- | --- |
| DOC | Microsoft Word document |
| DWF | Autodesk Design Web Format file |
| FEED | Really Simple Syndication (RSS) feed |
| HTM | Hypertext Markup Language (.htm) file |
| HTML | Hypertext Markup Language (.html) file |
| PDF | Adobe Portable Document Format |
| PPT | Microsoft PowerPoint presentation |
| RTF | Microsoft Rich Text Format document |
| TEXT | Generic text (.text) file |
| TXT | Generic text (.txt) file |
| XLS | Microsoft Excel workbook |

Parameters, options and operators not documented here are not officially supported.

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