

Flash and other Non-Javascript Environments ^{new!}

For Flash developers, and those developers that have a need to access the AJAX Search API from other Non-Javascript environments, the API exposes a simple RESTful interface. In all cases, the method supported is **GET** and the response format is a **JSON** encoded result set with embedded status codes. Applications that use this interface must abide by all existing [terms of use](#). An area to pay special attention to relates to correctly identifying yourself in your requests. Applications **MUST** always include a valid and accurate [http referer header](#) in their requests. In addition, we ask, but do not require, that each request contains a valid API Key. By providing a key, your application provides us with a secondary identification mechanism that is useful should we need to contact you in order to correct any problems. Read more about the [usefulness of having an API key](#)

Like the core Javascript interface, this interface is exposed through a uniform URL containing a mix of both standard and searcher specific CGI arguments. Your application can use an http stack of it's choosing. The only requirements are that you must be able to construct a properly constructed URL with all necessary CGI arguments, that you send an http referer header that accurately identifies your application, and that you are able to process the JSON encoded response.

Standard URL Base Address'

Each search endpoint is accessed through a standard URL. The following table lists the URL used to access each service.

Searcher	Base Url
Web Search	http://ajax.googleapis.com/ajax/services/search/web
Local Search	http://ajax.googleapis.com/ajax/services/search/local
Video Search	http://ajax.googleapis.com/ajax/services/search/video
Blog Search	http://ajax.googleapis.com/ajax/services/search/blogs
News Search	http://ajax.googleapis.com/ajax/services/search/news
Book Search	http://ajax.googleapis.com/ajax/services/search/books
Image Search	http://ajax.googleapis.com/ajax/services/search/images
Patent Search	http://ajax.googleapis.com/ajax/services/search/patent ^{New!}

Standard URL Arguments

Each request contains a mix of standard URL arguments and an optional set of searcher specific arguments. This section describes the standard arguments that are uniform across all searchers and that convey virtually identical semantic information to each searcher. In some cases, an argument is optional. This is indicated with a **?** following the name of the argument. In all cases, the value of a CGI argument must be properly escaped (e.g., via the functional equivalent of Javascript's `encodeURIComponent()` method).

The following table lists the standard URL arguments. Additional sections appear below that highlight searcher specific arguments.

Argument	Example	Description
q	q=Paris%20Hilton	This argument supplies the query, or search expression, that is passed into the searcher.
v	v=1.0	This argument supplies protocol version number. The only valid value at this point in time is 1.0 .
rsz?	rsz=small	This optional argument supplies the number of results that the application would like to receive. A value of small indicates a small result set size or 4 results. A value of large indicates a large result set or 8 results. If this argument is not supplied, a value of small is assumed.
hl?	hl=fr	This optional argument supplies the host language of the application making the request. If this argument is not present then the system will choose a value based on the value of the Accept-Language http header. If this header is not present, a value of en is assumed.
key?	key=your-key	This optional argument supplies the application's key. If specified, it must be a valid key associated with your site which is validated against the passed referer header. The advantage of supplying a key is so that we can identify and contact you should something go wrong with your application. Without a key, we will still take the same appropriate measures on our side, but we will not be able to contact you. It is definitely best for you to pass a key.
start?	start=4	This optional argument supplies the start index of the first search result. Each

		<p>successful response contains a <code>cursor</code> object (see below) which includes an array of <code>pages</code>. The <code>start</code> property for a page may be used as a valid value for this argument. For reference, a sample cursor object is shown below:</p> <pre>"cursor": { "pages": [{ "start": "0", "label": 1 }, { "start": "4", "label": 2 }, { "start": "8", "label": 3 }, { "start": "12", "label": 4 }], "estimatedResultCount": "48758", "currentPageIndex": 0, "moreResultsUrl": "http://www.google.com/search..." }</pre>
callback?	callback=foo	<p>This optional argument alters the standard response format. When supplied, instead of producing a simple JSON encoded object, the system produces a Javascript function call response where the value of <code>callback</code> specifies the name of the function called in the response.</p> <pre>callbackFunction({ "responseData" : { "results" : [], "cursor" : {} }, "responseDetails" : null string-on-error, "responseStatus" : 200 error-code });</pre>
context?	context=bar	<p>This optional argument is related to the <code>context</code> argument. When both are supplied, the value of <code>context</code> alters the normal response format associated with <code>callback</code>. The new format is:</p> <pre>callbackFunction(contextValue, // the context arg value responseObject, // the collection of results and cursor // the cursor object responseStatus, // 200 on success, non-200 on failure // error string for non-200 errorDetails) // error string for non-200 response</pre>

Standard Response Format

As discussed briefly in the previous section, there are two major variations in the response format. When the `callback` and `context` arguments are not supplied, the response format is a simple JSON object:

```
{
  "responseData" : {
    "results" : [],
    "cursor" : {}
  },
  "responseDetails" : null | string-on-error,
  "responseStatus" : 200 | error-code
}
```

In the JSON fragment above, note that the `responseData` property contains a `results` array and an optional `cursor`. These are identical both semantically and structurally to the results returned through the JavaScript [Searchers](#) layer. The `responseStatus` property contains a value of `200` on success and a non-200 http error status code on failure. If there is a failure, `responseDetails` contains a diagnostic string.

By using the `callback` argument, applications can easily request a JavaScript callback::

```
callback({
  "responseData" : {
```

```
    "results" : [],
    "cursor" : {}
  },
  "responseDetails" : null | string-on-error,
  "responseStatus" : 200 | error-code
});
```

If the application supplies both `callback` and `context` arguments, the response is encoded as a JavaScript procedure call. In this mode of operation, the value of `callback` becomes the procedure call target, the value of `context` is passes as the first argument, the value of `responseData` from above is passes as the second argument, the response status is passed as the third argument, and the final argument is either `null` or a diagnostic string.

```
foo('bar',{
  "results": [
    {
      "GsearchResultClass": "GwebSearch",
      "unescapedUrl": "http://en.wikipedia.org/wiki/Paris_Hilton",
      "url": "http://en.wikipedia.org/wiki/Paris_Hilton",
      "visibleUrl": "en.wikipedia.org",
      "cacheUrl": "http://www.google.com
/search?q\u003dcache:TwrPfhd22hYJ:en.wikipedia.org",
      "title": "\u003cb\u003eParis Hilton\u003c/b\u003e - Wikipedia, the free
encyclopedia",
      "titleNoFormatting": "Paris Hilton - Wikipedia, the free encyclopedia",
      "content": "In 2006, she released her debut album \u003cb\u003eParis\u003c/b
\u003e..."
    },
    {
      "GsearchResultClass": "GwebSearch",
      "unescapedUrl": "http://www.imdb.com/name/nm0385296/",
      "url": "http://www.imdb.com/name/nm0385296/",
      "visibleUrl": "www.imdb.com",
      "cacheUrl": "http://www.google.com/search?q\u003dcache:li34Kkqns00J:www.imdb.com",
      "title": "\u003cb\u003eParis Hilton\u003c/b\u003e",
      "titleNoFormatting": "Paris Hilton",
      "content": "Self: Zoolander. Socialite \u003cb\u003eParis Hilton\u003c/b\u003e
was..."
    },
    ...
  ],
  "cursor": {
    "pages": [
      { "start": "0", "label": 1 },
      { "start": "4", "label": 2 },
      { "start": "8", "label": 3 },
      { "start": "12", "label": 4 }
    ],
    "estimatedResultCount": "59600000",
    "currentPageIndex": 0,
    "moreResultsUrl": "http://www.google.com/search?oe\u003dut8..."
  }
},
200, null)
```

Web Search Specific Arguments

The Web Search system supports a number of optional arguments which are all listed below:

Argument	Description
cx?	This optional argument supplies the unique id for the Custom Search Engine that should be used for this request (e.g., <code>cx=000455696194071821846:reviews</code>).
cref?	This optional argument supplies the url of a linked Custom Search Engine specification that should be used to satisfy this request (e.g., <code>cref=http%3A%2F%2Fwww.google.com%2Fcse%2Fsamples%2Fvegetarian.xml</code>).
safe?	This optional argument supplies the search safety level which may be one of: <ul style="list-style-type: none"><code>safe=active</code> - enables the highest level of safe search filtering<code>safe=moderate</code> - enables moderate safe search filtering (default)<code>safe=off</code> - disables safe search filtering
lr?	This optional argument allows the caller to restrict the search to documents written in a particular

lr?	This optional argument allows the caller to restrict the search to documents written in a particular language (e.g., <code>lr=lang_ja</code>). This list contains the permissible set of values.
filter? New!	This optional argument controls turning on or off the duplicate content filter: <ul style="list-style-type: none"> <code>filter=0</code> - Turns off the duplicate content filter <code>filter=1</code> - Turns on the duplicate content filter (default)

Local Search Specific Arguments

The Local Search system supports a number of optional arguments which are all listed below:

Argument	Description
sll?	This optional argument supplies the search center point for a local search. It's value is a comma separated latitude/longitude pair, e.g., <code>sll=48.8565,2.3509</code> .
sspn?	This optional argument supplies a bounding box that the local search should be relative to. When using a Google Map, the <code>sspn</code> value can be computed using: <code>myMap.getBounds().toSpan().toUrlValue();</code> (e.g., <code>sspn=0.065169,0.194149</code>).
mr? New!	This optional argument specifies which type of listing the user is interested in. Valid values include: <ul style="list-style-type: none"> <code>blended</code> - request KML, Local Business Listings, and Geocode results <code>kmlonly</code> - request KML and Geocode results <code>localonly</code> - request Local Business Listings and Geocode results <p>If this argument is not supplied, the default value of <code>localonly</code> is used.</p>

Video Search Specific Arguments

The Video Search system supports a number of optional arguments which are all listed below:

Argument	Description
scoring?	This optional argument tells the video search system how to order results. Results may be ordered by relevance (which is the default) or by date. To select ordering by relevance, do not supply this argument. To select ordering by date, set scoring as <code>scoring=d</code> .

Blog Search Specific Arguments

The Blog Search system supports a number of optional arguments which are all listed below:

Argument	Description
scoring?	This optional argument tells the blog search system how to order results. Results may be ordered by relevance (which is the default) or by date. To select ordering by relevance, do not supply this argument. To select ordering by date, set scoring as <code>scoring=d</code> .

News Search Specific Arguments

The News Search system supports a number of optional arguments which are all listed below:

Argument	Description
scoring?	This optional argument tells the news search system how to order results. Results may be ordered by relevance (which is the default) or by date. To select ordering by relevance, do not supply this argument. To select ordering by date, set scoring as <code>scoring=d</code> .
geo? New!	This optional argument tells the news search system to scope search results to a particular location. With this argument present, the query argument (<code>q</code>) becomes optional. Note, this is a very new feature and locally scoped query coverage is somewhat sparse. You must supply either a city, state, country, or zip code as in <code>geo=Santa%20Barbara</code> or <code>geo=British%20Columbia</code> or <code>geo=Peru</code> or <code>geo=93108</code> .
qsid? New!	This optional argument tells the news search system to scope search results to include only quote typed results (rather than classic news article style results). With this argument present, the query argument (<code>q</code>) becomes optional. The value of this argument designates a prominent individual whose quotes have been recognized and classified by the Google News search service. For instance, Barack Obama has a <code>qsid</code> value of <code>tPjE5CDNzMicmM</code> and John McCain has a value of <code>lE61RnznhxvadM</code> . Note, this is a very new feature and we currently do not have a good search or discovery mechanism for these <code>qsid</code> values..

topic? ^{New!}	<p>This optional argument tells the news search system to scope search results to a particular topic. The value of the argument specifies the topic in the current or selected edition:</p> <ul style="list-style-type: none"> • h - specifies the top headlines topic • w - specifies the world topic • b - specifies the business topic • n - specifies the nation topic • t - specifies the science and technology topic • el - specifies the elections topic • p - specifies the politics topic • e - specifies the entertainment topic • s - specifies the sports topic • m - specifies the health topic <p>A topic selection can be used with or without a <i>query</i>. When used without a query, the entire topic is delivered (subject to <code>&rsz</code>), and when used with a query, the query is scoped to the specified topic.</p> <p>Topics vary slightly from edition to edition. E.g., in African editions like Namibia or Zimbabwe (<code>&ned=en_na</code>, <code>&ned=en_zw</code>) the topic <code>af</code> is available and represents the African topic. In general, if you are viewing an edition of Google News and see a topic of interest, click on the topic header and view the <code>&topic</code> argument in the browser's address bar.</p>
ned? ^{New!}	<p>This optional argument tells the news search system which edition of news to pull results from. Values include:</p> <ul style="list-style-type: none"> • us - specifies the US edition • uk - specifies the UK edition • fr_ca - specifies the French Canadian edition • etc. <p>The best way to understand the available set of editions is to look at the edition links at the bottom of Google News. After clicking on an edition, note the value of <code>&ned</code> argument in the browser's address bar.</p>

Book Search Specific Arguments ([experimental](#))

The Book Search system supports a number of optional arguments which are all listed below:

Argument	Description
as_brr?	This optional argument tells the book search system to restrict the search to "full view" books, or all books. A value of <code>as_brr=1</code> restricts the search to only those books that are viewable in full. The default case is all books and that is indicated by not specifying this argument.
as_list?	This optional argument tells the book search system to restrict the search to the specified user-defined library.

Image Search Specific Arguments

The Image Search system supports a number of optional arguments which are all listed below:

Argument	Description
safe?	<p>This optional argument supplies the search safety level which may be one of:</p> <ul style="list-style-type: none"> • <code>safe=active</code> - enables the highest level of safe search filtering • <code>safe=moderate</code> - enables moderate safe search filtering (default) • <code>safe=off</code> - disables safe search filtering
imgsz?	<p>This optional argument tells the image search system to restrict the search to images of the specified size, where size can be one of:</p> <ul style="list-style-type: none"> • <code>imgsz=icon</code> - restrict to small images • <code>imgsz=small medium large xlarge</code> - restrict to medium images • <code>imgsz=xxlarge</code> - restrict to large images • <code>imgsz=huge</code> - restrict to extra large images
imgc?	<p>This optional argument tells the image search system to restrict the search to images of the specified colorization, where colorization can be one of:</p> <ul style="list-style-type: none"> • <code>imgc=gray</code> - restrict to grayscale images • <code>imgc=color</code> - restrict to color images

imgcolor? ^{New!} (experimental)	<p>This optional argument tells the image search system to filter the search to images of the specified color:</p> <ul style="list-style-type: none"> imgcolor=black imgcolor=blue imgcolor=brown imgcolor=gray imgcolor=green imgcolor=orange imgcolor=pink imgcolor=purple imgcolor=red imgcolor=teal imgcolor=white imgcolor=yellow
imgtype? (experimental)	<p>This optional argument tells the image search system to restrict the search to images of the specified type:</p> <ul style="list-style-type: none"> imgtype=face - restrict to images of faces imgtype=photo - restrict to photos ^{New!} imgtype=clipart - restrict to clipart images ^{New!} imgtype=lineart - restrict to images of line drawings ^{New!}
as_filetype?	<p>This optional argument tells the image search system to restrict the search to images of the specified filetype, where filetype can be one of:</p> <ul style="list-style-type: none"> as_filetype=jpg - restrict to jpg images as_filetype=png - restrict to png images as_filetype=gif - restrict to gif images as_filetype=bmp - restrict to bmp images
as_sitesearch?	<p>This optional argument tells the image search system to restrict the search to images within the specified domain, e.g., <code>as_sitesearch=photobucket.com</code>. Note: This restriction may restrict results to images found on pages at the given URL and/or images with the given URL.</p>

Patent Search Specific Arguments ^{New!}

The Patent Search system supports a number of optional arguments which are all listed below:

Argument	Description
as_psrg?	<p>This optional argument tells the patent search system to restrict the search to ONLY patents that having been issued, skipping all patents that have only been filed. When specified, that value must be <code>1</code> as in <code>&as_psrg=1</code></p>
as_psra?	<p>This optional argument tells the patent search system to restrict the search to ONLY patents that only been filed, skipping over all patents that have been issued. When specified, that value must be <code>1</code> as in <code>&as_psrg=1</code></p>
scoring?	<p>This optional argument tells the patent search system how to order results. Results may be ordered by relevance (which is the default) or by date. To select ordering by relevance, do not supply this argument. To select ordering by descending date where the newest result is first, set scoring as <code>scoring=d</code>. To select ordering by ascending date where the oldest result is first, set scoring as <code>scoring=ad</code>.</p>