# Cengage Learning Web Research Products Group
# HEADLINE DIRECT User Guide

**Version 6.0**
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# Headline Direct User Guide

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# 2 Introduction

At HighBeam, we believe it is in everyone's best interest to make our partners as successful as possible.  As such, we have developed HighBeam Headline Direct to help our partners include contextually relevant headlines within their website. Headline Direct allows you to place automatically-updating HighBeam search results (or "headlines) on your website – results that are directly relevant to the content of your site.  This not only provides your site with additional relevant content, it also is an excellent way to introduce your visitors to the content and capabilities of HighBeam.

Headline Direct gives developers the utmost control over presentation of a HighBeam search results within your environment by providing results in an XML format. Developers who use the HighBeam XML headline feature should be experienced with XML technologies and web server protocols.

Headline Direct is also available in Javascript and Web Service versions, as described in sections 6 and 7, which allows for further customization of headline presentation on your site.

## 2.1 Contact Information

For questions regarding Headline Direct, please contact your account executive.

## 2.2 Using this Guide

This guide provides instructions for implementing Headline Direct on your website.  The focus is on the XML output version, including a description of each of the parameters available to customize your query and examples of how to use each parameter.  It also includes examples of the XML output and how this product can display on your website.

The guide also contains instructions for implementing Headline Direct using both Javascript and Web Service methods.

Detailed information about parameters and DTDs are contained within the Appendices of this document.

# 3 Requirements

All interaction with HighBeam Headline Direct is accomplished via HTTP by calling the Headline Direct URL. The output of this URL is well formed XML. The calling application on the partner's site is responsible for handling the XML and formatting to HTML.

The headline feed is acquired by passing various parameters to this script. The parameters are listed in Appendix A.

A Javascript version is available, which provides more flexibility in the display of the search results, including formatting.

A Web Service version is also available, which provides more flexibility in the access and display of search results.  The parameters for this version are included in Appendix B as there are slight variances to the XML version.

# 4 Headline Direct URL

The Headline Direct is available through the HighBeam Services website.   In addition to the base URL, the services site requires two parameters are appended to the URL in order to return XML results.

**http://services.highbeam.com/headlinefeed.aspx?query=[query]&refid=[refid]**

Other parameters are available to further refine the output of the feed.  Please refer to Appendix A (Headline Direct URL parameters) for complete listing of parameters.

## 4.1   Required Parameters

### 4.1.1   Query

Headline Direct requires that your URLs include both a query and refid value.

The query parameter is **query=**.  You may populate this with any search term you'd like.  You may use multiple words, special characters, etc., and the system will automatically encode the special characters for use on the website.

#### 4.1.1.1   Boolean Queries

Headline Direct accepts Boolean queries via the following operators:

- AND (conjunction)
- ANDNOT (negation)
- OR (disjunction)

For example, if you wanted to search articles about the Tony Awards and Broadway or Musicals, but not include articles about the musical Wicked, you query might look like this:

Query=Tony Awards and Broadway or Musicals andnot Wicked

### 4.1.2   Refid

The refid parameter is **refid=**.  You may populate this value with the appropriate refid assigned to you by HighBeam Research, Inc.  Your account allows for multiple refids, however, only one refid is needed per call to Headline Direct.

One reason you may want to use multiple refids is to separate referrals out based on where the user was on your site when being referred to [www.highbeam.com](www.highbeam.com).  HighBeam has access to the data to provide back to you for analyzing which programs are driving the most registrations.

## 4.2   Optional Parameters

Headline Direct will process a variety of parameters for your query, producing extremely customized results for your content.  The parameters, their usage and their values are described below.

**Note**: as the additional parameters available are described below, you may notice that in the URLs, spaces are represented by the characters %20.  This is standard encoding for spaces in URLs.  You may submit your URLs to Headline Direct with spaces or using the encoded %20.

### 4.2.1   Search by Content Source Type

HighBeam has many different source types including Magazines, Newspapers, Books, and more.  The parameter for including source types is simply **srctype**.

When the URL does not contain any parameters that specify the source types to use, Headline Direct searches against all source types, which is the default setting.

If you would like to limit your search to a single source type or a small group of source types, each source you want to include should be added to the URL.

Depending on the source type you want to use, you will enter one or more types into the URL.  This parameter only works by including the source types you enter in your search.  To exclude a source type, simply don't include it in your URL.

| SrcType Code | Source Type |
|---|---|
| ALM | Almanacs |
| BOOKS | Books |
| DICT | Dictionaries |
| ENCY | Encyclopedias |
| MAGS | Magazines |
| MAPS | Maps |
| WIRE | News Wires |
| NEWS | Newspapers |
| PICS | Pictures/Images |
| PREL | Press Releases |
| THES | Thesauruses |
| TRAN | Transcripts |
| WHITEPAPER | Whitepapers |

For example, if you wanted to search for articles about diamonds from magazines only, your query might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&srctype=mags

If you wanted to search from multiple sources, you can add multiple sources to the URL via the vertical pipe character (|).   For example, if you wanted to search for articles about diamonds from magazines, encyclopedias and newspapers, your query might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&srctype=mags|ency|news

## 4.2.2  Search by Article Title

Headline Direct can limit results to an article title or part of an article title.

The **title** parameter is not case-sensitive and will process spaces in a phrase automatically. This parameter looks for titles that meet your query term and that include the phrase you've entered for the title parameter in the document's title.

**Note** that the results will include documents that have the word 'Collection' in the title – it does not limit the search to documents whose title begins with the word.

For example, if you want to research articles about diamond collections, you might submit a URL that looks like this:
http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&Title=Collection

**Note** that due to the nature of article title length and variety, if you include the title parameter in your URL, validation errors will not be performed.  Thus, if your parameter is submitted as null it will not be processed, and if the parameter is submitted with a very long or unique string, Headline Direct will process the search by seeking an exact match to the string submitted.

## 4.2.3  Search by Author Name

The **author** parameter limits your results to documents written by a particular author.  You may include the author's last name, first name, last and first, or first and last.  You will find extremely similar results when including both the first and last names, regardless of order.

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&author=Moore, Thomas

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&author=Moore

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&author=Thomas

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&author=Thomas Moore

**Note** that due to the nature of author name length and variety, if you include the author parameter in your URL, validation errors will not be performed.  Thus, if your parameter is submitted as null it will not be processed.

### 4.2.4  Search by Publication Name

Headline Direct allows users to submit a query that includes or excludes particular publications.  Note that you can not include some and exclude others, as these limitations are mutually exclusive.

To manipulate your search to include or exclude publications, the URL requires two parameters: **searchtype** and **publication**.

The **searchtype** parameter allows two inputs: *include_all* or *exclude_all*, which tells Headline Direct whether to include or exclude the publications you list in the publication parameter.

Enter the publication names you want to include/exclude in the **publication** parameter. Note that you will need to enter an exact match for the publication title in order to search on it.  For example, if you want to see only articles from the Washington Post, your query should include *The Washington Post* as *Washington Post* will return no documents.

The default searchtype parameter value is *include_all*, so if you'd like to include publications in your search, you may omit the parameter from the URL as the example in section 4.2.4.1 shows.  If you prefer to do so, you may also include the parameter as follows:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&searchtype=include_all&publication=Chicago%20Tribune%20(Chicago,%20IL)|Chicago%20Sun-Times

#### 4.2.4.1   Including Publications

The **publication** parameter limits your results to documents from the publications you specify.  To include multiple publications in your search, separate publication names with a vertical pipe character (|).

For example, if I wanted to search for diamond from The Chicago Tribune and The Chicago Sun-times, my URL might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&publication=Chicago%20Tribune%20(Chicago,%20IL)|Chicago%20Sun-Times

**Note** that due to the nature of publication title length and variety, if you include the publication parameter in your URL, validation errors will not be performed.  Thus, if your parameter is submitted as null it will not be processed, and if the parameter is submitted with a very long or unique string, Headline Direct will process the search by seeking an exact match to the string submitted.  Note that you include the searchtype=include_all parameter and then do not include a publication name to include, all publications will automatically be included in your search.  If you are interested in seeing a list of valid publication titles for HighBeam, please contact your account executive.

#### 4.2.4.2   Excluding Publications

To exclude publications from your search, you'll need to include two parameters – one that directs the service to exclude publications in the search, and a second to indicate which publications to exclude.

To tell the system that you want to exclude titles from your search, use the **searchtype=exclude_all** parameter.  After that parameter appears in the URL, you may list one or more publications (separated by a vertical pipe character (|)) using the **pub=** parameter.

For example, if I wanted to search diamond from all titles except PR Newswire, my query would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&searchtype=exclude_all&publication=PR%20Newswire

### 4.2.5  Search by Date

**Datetype** defines the type of date search that you want results filtered by.

---

Certain datetype values will require use of two additional parameters, begindate and enddate, as described below.

| Date Search | Description |
|---|---|
| All Dates | No filter on date (default value)* |
| Specific Date | Article date matches pubdate parameter |
| Before a specific date | Article date is before enddate parameter |
| After a specific date | Article date is AFTER begindate parameter |
| Between two dates | Article date is between begindate and enddate parameter |
| Last n months | Article date is within n months of current date, where the parameter entered is datetype=n |

*If you want to search articles from all dates, you do NOT need to use any additional parameters for the dates, as Headline Direct searches all dates by default.

Note that if want to limit your search by date, and you use the begindate or enddate parameters, dates should be entered in the format MM-DD-YYYY.

For example, if you wanted to search documents about diamonds that were published on January 1 2000, your URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&pubdate=01-01-2000

If you wanted to search documents that were published before January 1, 2000, your URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&enddate=01-01-2000

If you wanted to search documents that were published after January 1, 2000, your URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&begindate=01-01-2000

If you wanted to search documents about diamonds published between January 1 and March 31, 2000, your URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&begindate =01-01-2000&enddate=03-31-2000

And, if you wanted to search only documents that were published in the last 6 months, the URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=6

## 4.2.6 Limit the Number of Results Shown

You can limit the number of results returned in your search by including the **numresults** parameter.

By default the Headline Direct service limits results to 10 documents.  If you'd like to show more, or less, simply append this parameter to the URL and set the value equal to the number of documents you'd like to see.  You may use a value of 1-30 documents.

For example, if you wanted to limit your results to 8 documents, your query might look like this**:**

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&numresults=8

**Note** that this parameter only allows a value up to 30 to be submitted.  If you submit a value greater than 30, Headline Direct will return only 10 results.

### 4.2.7  Display Teaser Text with Article Results

Teaser text is a snippet of article text that can be displayed with search results to give users more information on the article's content.  By default, this is not shown with results so you only need to use the parameter if you'd like to see teaser text included.  In order to include this text, the parameter is labeled **teaser**.

To show the teaser, your URL should contain teaser=true.

For example, if you wanted to view documents for diamond, and include teasers, the URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&teaser=true

### 4.2.8  Display Preview Text with Article Results

Preview text shows up to the first 300 characters of the article without ending the preview on a stop word or in the middle of a word.  By default, this is not shown with results so you only need to use the parameter if you'd like to see preview text included.  In order to include this text, the parameter is labeled **preview**.

To show the preview, your URL should contain preview=true.

For example, if you wanted to view documents for diamond, and include previews, the URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&preview=true

#### 4.2.8.1  Set the length of Preview Text

If you prefer to show less than the default 300 characters of preview text, you may do so by using the **previewlength** parameter in conjunction with the **preview** parameter.  You only need to include the parameter if you want something other than the default preview length.

For example, if you wanted to view documents for diamond, and include previews with only 200 characters, the URL would look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&preview=true&previewlength=200

### 4.2.9  Sort Results by Date or Relevancy

Search results may be sorted by relevancy, date, or both.  This feature may require multiple parameters be added to the URL depending how you want to sort.

The **sorttype** parameter indicates whether you want to sort by date, relevancy, or both.  Once you indicate the sort method, you need to indicate whether you'd like to sort in ascending or descending order via the **sortdirection** parameter.  These parameters must be used together.

By default, results are sorted by relevance, with the most relevant articles appearing first.

**Note** that if you submit an invalid value for the **sorttype** parameter, the default sorttype value of *RANK* (relevance) will be used. Similarly, if you submit an invalid value for the **sortdirection** parameter, the default sortdirection value of *d* (descending) will be used.

#### 4.2.9.1  Sort Results by Date

You may sort results by date in descending (newest first) or ascending (oldest first) order.  Simply use the *PUBDATE* value for the **sorttype** parameter and indicate the sort direction via the **sortdirection** parameter.

| Sort | Code |
|---|---|
| Date, Ascending (oldest first) | sorttype=pubdate&sortdirection=asc |

| Date, Descending (newest first) | sorttype=pubdate&sortdirection=desc |

For example, if you wanted to search for the most recent articles about diamonds, your URL might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&sorttype=pubdate&sortdirection=desc

#### 4.2.9.2    Sort Results by Relevancy

You may sort results by relevance in descending (most relevant first) order.  Simply use the *rank* value for the **sorttype** parameter and indicate the sort direction via the **sortdirection** parameter.

| Sort | Code |
|------|------|
| Relevancy, Descending (most relevant first) | sorttype=rank&sortdirection=desc |

For example, if you wanted to search for the most relevant articles about diamonds, your URL might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&sorttype=rank&sortdirection=desc

## 4.2.10 Auto-correct Spelling

Headline Direct can auto-correct a misspelled submission based on the dictionary in our search engine.  This feature is activated by the **spell** parameter.

If you find that a lot of queries are submitted which return no or poor results due to misspellings, you can use this feature to improve the chances of returning quality results.

To use the spell correction feature, your URL should contain spell=true.

For example, the link below misspells the word diamond as *dimond*, but, results contain articles about *diamond*.

http://services.highbeam.com/headlinefeed.aspx?query=dimond&refid=test&spell=true

## 4.3 URL Rules

### 4.3.1 Spaces Between Words in Multi-Word Queries

As noted above, you may notice that if you enter a URL into your address bar that contains spaces between words, that the URL automatically appears with %20 in their place. %20 is the default set of characters used on the internet to encode spaces in URLs that submit data to a website.

## 4.4 Invalid Parameter Values

The expected/allowed parameter values for each parameter is defined in each section of the document describing the parameters available for use in Headline Direct. They also appear in Appendix A. If an invalid parameter value is used in a URL, your query may return an error or your query may simply run and ignore that the parameter was attempted to be included in the query.

Cases in which an empty or invalid parameter returns an error message are outlined in section 5.4 (Error Reporting). Cases not listed here are not processed as part of the query and will not return an error.

## 4.5 Example URL

You can type this URL into your browser and your browser will format the XML results. The URL listed below is the simplest query you can enter to Headline Direct.

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test

# 5 Output

Headline Direct outputs search results in XML format. (Please refer to 6.1 for the complete DTD, or use the following URL for sample output:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test

## 5.1 Status (XML Head)

The head of the output XML contains status elements to let users know if the search was successful, how many results it contained, or, if the search failed, the reason for the failure.

| Element | Description |
|---------|-------------|
| status | Status result of the search. May display SUCCESS or NORESULT |
| host | Environment (will always be services) |
| time | Query Processing time in milliseconds |
| count | The number of results in the list |
| query | Displays the query term used to process results (pulled from the URL) |
| error | If the request failed, this will be the only element shown with the type of error noted between the tags. |

## 5.2   List Node

The list node contains an element n, including ranking information for each result (relevance to the search term).  The element n contains all the additional elements that provide information about each document.

You may notice additional elements in the output that are single letters, in lower-case. These are in the output to support headline direct for previous versions and are defined in Appendix C with other information about previous versions.

| Node | Element | Description |
|---|---|---|
| l |  |  |
|  | first hit<br>last hit<br>hits<br>totalhits<br>time | FirstHit will always equal 0<br>LastHit will always equal the number of results displayed minus 1<br>Hits is the number of results displayed<br>TotalHits is the number of total results found<br>Time is the time to run the query (ms) |
| n |  | Document Node |
|  | n no | Result number (starting with 1) |
|  | rank | Relevancy rating from the search engine |
|  | title | Document title |
|  | pub_date | Date the document was published |
|  | publication | Publication Name |
|  | author | Author Name, if available |
|  | src_type | Source Type |
|  | processingtime | Date and Time HighBeam servers processed the article. |
|  | doc_id | Document ID |
|  | body_word_cnt | Word count for the full document |
|  | docclass | Document Class |
|  | url | Document URL |
|  | lo | Publisher icon/publication logo url |
|  | originalquery | Query used for the current search |
|  | previewactuallength (Appears only with 'preview' element) | Size of preview text available in the search engine (in characters/bytes, shows only when the preview element is returned) |
|  | size | Full size of document (in characters/bytes) |
|  | teaser (Optional) | Teaser text showing the part of the document with highest relevance for the search term |
|  | preview (Optional) | First 300 characters of the document |

## 5.3 Sample XML Output Headline Direct

Below is a sample of the XML output you'll receive from the Headline Direct site.  The URL input for this output was:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test

The sample below contains the main xml output SRL element (search result list), as well as the n element (document node).  Within the n element, a single search result is displayed. Note that this example includes a teaser and preview which is not part of the default settings for a query.

```
<srl>
  <status>SUCCESS</status>
  <host>stage</host>
  <time>1252</time>
  <count>10</count>
  <query>diamond</query>
- <l firsthit="0" lasthit="9" hits="10" totalhits="409089" time="1252">
- <n no="1">
  <rank>2624</rank>
- <title>
- <![CDATA[ Surface conductivity of diamond   ]]>
  </title>
  <pub_date>3/1/2008</pub_date>
- <publication>
- <![CDATA[ Tribology & Lubrication Technology   ]]>
  </publication>
- <author>
- <![CDATA[ Canter, Neil   ]]>
  </author>
- <src_type>
- <![CDATA[ MAGS   ]]>
  </src_type>
  <processingtime>5/9/2008 12:00:00 AM</processingtime>
  <doc_id>1P3:1469846951</doc_id>
  <body_word_cnt>787</body_word_cnt>
  <docclass>PAID</docclass>
- <url>
- <![CDATA[ http://www.highbeam.com/doc/1P3-1469846951.html?refid=test   ]]>
  </url>
  <lo>http://www.highbeam.com/aspx/GetPubLogo.aspx?pub=Tribology+%26+Lubrication+Technology</lo>
  <originalquery>diamond</originalquery>
  <previewactuallength>296</previewactuallength>
  <size>296</size>
- <teaser>
- <![CDATA[ <b>Diamond</b> is the hardest natural substance known and is used as wearresistant...abrasion-
  resistant and ideally suited for these applications. <b>Diamond</b> coatings also exhibit very low coefficients of
  friction under ambient conditions. One of the reasons for <b>diamond</b>'s outstanding properties is its
  inertness. But ...   ]]>
  </teaser>
- <preview>
- <![CDATA[ Diamond is the hardest natural substance known and is used as wearresistant and cutting tool
  coatings. This substance is very abrasion-resistant and ideally suited for these applications. Diamond coatings
  also exhibit very low coefficients of friction under ambient conditions. One of the reasons   ]]>
  </preview>
  </n>
```

## 5.3.1 Sample Website Display of Output

A sample of what Headline Direct might look like on your site appears below. This sample is based on a simple query for diamond, and shows the first 10 results based on relevance (default output, as shown in the sample above).

| | |
|---|---|
| Magazine | **Surface conductivity of diamond**<br>**Tribology & Lubrication Technology;** Mar 1, 2008; Canter, Neil; 787 Words |
| American MACHINIST | **Diamonds: for sparkling tool performance: developments in diamond coatings allow tools to work harder, last longer. (TOOLING)**<br>**American Machinist;** Apr 1, 2008; Benes, Jim; 787 Words |
| PR Newswire | **Diamonds Dominate the Red Carpet at the Academy Awards.**<br>**PR Newswire;** Mar 1, 2004; 787 Words |
| R&D | **Diamond films being explored for electronic applications. (includes related articles)**<br>**R & D;** Apr 1, 1995; Studt, Tim; 787 Words |
| Magazine | **Describing diamond beauty: assessing optical performance: the vocabulary of diamond beauty involves the historical terms, brilliance and fire, and the more recent term, scintillation. To that can be added contrast brilliance.**<br>**Israel Diamonds;** Jun 1, 2005; Cowing, Michael; 787 Words |
| PR Newswire | **Diamond Fields announces ship acquisition and reports diamond production.**<br>**PR Newswire;** Oct 14, 2004; 787 Words |
| SCIENCE NEWS | **Diamond electronics: sparkling potential.**<br>**Science News;** Aug 23, 1986; Peterson, Ivars; 767 Words |
| Magazine | **Which diamond grinding wheel?**<br>**Manufacturing Engineering;** Mar 1, 1998; Bryant, Jeff; 787 Words |
| Magazine | **Industrial diamond**<br>**Mining Engineering;** Jun 1, 2002; Olson, D W; 760 Words |
| Newspaper | **Buying diamonds**<br>**The Malay Mail;** Aug 15, 2006; 656 Words |

## 5.4   Error Reporting

Headline Direct will report back in the XML header when an error has occurred processing the query submitted.

When an error occurs, the xml you see will show the <srl> element with the error field containing an error message.

For example, if you were to pass an invalid source type, the xml output would look like this:

```
- <srl>
   <error>Invalid Source Passed.</error>
  </srl>
```

| Message | Error Description | Resolution |
|---|---|---|
| Query parameter cannot be null or empty. | The Query parameter was submitted with a null value or was not included in the request. | Enter a query term in the request. |
| RefId cannot be null or empty. | Refid was submitted with a null value or was not included in the request. | Enter a valid refid in your request. |
| Invalid RefID. | Refid supplied is not valid. | Enter a valid refid in your request. |
| Invalid sources. | At least one source type supplied in the request is not valid. | Enter a valid source type in your request. |
| Invalid PublicationSearchType. | The parameter passed for searchtype= is invalid. | Enter a valid searchtype value in your request. |
| At least one publication value is needed when specifying PubSearchType ALL. | When using the exclude_all searchtype, you must also provide the publication= parameter with at least one publication name. | Enter a valid publication name with the publication parameter after the searchtype parameter. |
| Invalid PubDate value. | The parameter passed for the pubdate, startdate, or enddate is invalid. | Enter a valid PubDate value in mm-dd-yyyy format. |
| Invalid DateType value. | The parameter passed for the datetype is not a valid integer. | Enter a valid DateType value. |

# 6 Javascript (only for partners using the Javascript implementation)

By default, Headline Direct outputs your search results using XML. This was designed for server side processing of the search results so that you can display them on your webpage.

The Javascript version of Headline Direct does not require any processing on your end because the search results are returned inside of JavaScript that can then render the results on your page. All that is required is to include the HTML code that calls the JavaScript version of headline direct.

Because the rendering of the JavaScript version of Headline Direct is handled on the client side, nothing is produced related to error conditions.

The Javascript version of Headline Direct applies all the same parameters as the classic version described above in this document, except the teaser and preview parameters, as the output will always display only the article headline, publication name, and the publication logo.

## 6.1 Javacript URL

The url for the JavaScript version of Headline Direct is located at:
**http://services.highbeam.com/headlinefeedjs.aspx**

This url uses the same exact parameters as described throughout this document, except the teaser and preview parameters, as the output will always display only the article headline, publication name, and the publication logo.

### 6.1.1 Input Example

The following HTML snippet will display search results on your page.
```
    <script language="javascript"
src="http://services.highbeam.com/HeadlineFeedJS.aspx?query=[Your Search
Term]&refid=[Your RefId]">
    </script>
```

You may feel free to encapsulate the JavaScript block inside of TABLE or DIV tags to define positioning and layout, for example:
```
<TABLE width=300><TR><TD>
<script language="javascript" src="
http://services.highbeam.com/HeadlineFeedJS.aspx?query=[Your Search
Term]&refid=[Your RefId]">
 </script>
</TD></TR></TABLE>
```

### 6.1.2 Sample Website Display of Javascript Output

The following screenshot is an example of what the output would look like if your javascript code called Headline Direct with the following string:

http://services.highbeam.com/HeadlineFeedJS.aspx?query=diamond&refid=test

## Articles from HighBeam

| | |
|---|---|
| Magazine | **Surface conductivity of diamond**<br>Tribology & Lubrication Technology |
| American MACHINIST | **Diamonds: for sparkling tool performance: developments in diamond...**<br>American Machinist |
| PR Newswire | **Diamonds Dominate the Red Carpet at the Academy Awards.**<br>PR Newswire |
| Magazine | **Describing diamond beauty: assessing optical performance: the...**<br>Israel Diamonds |
| R&D | **Diamond films being explored for electronic applications. (includes...**<br>R & D |
| PR Newswire | **Diamond Fields announces ship acquisition and reports diamond...**<br>PR Newswire |
| SCIENCE NEWS | **Diamond electronics: sparkling potential.**<br>Science News |
| Magazine | **Which diamond grinding wheel?**<br>Manufacturing Engineering |
| Magazine | **Industrial diamond**<br>Mining Engineering |
| Newspaper | **Buying diamonds**<br>The Malay Mail |

# 7 SOAP/Web Service Method (only for partners using the SOAP/Web Service method)

By default, Headline Direct outputs your search results using XML. This was designed for server side processing of the search results so that you can display them on your webpage.

The Web Service version of Headline Direct allows you to implement an object on your web page to call the Headline Direct service to retrieve search results.

The Web Service version of Headline Direct applies many of the same parameters as the XML output version of Headline Direct.  Appendix B contains the parameter names and DTD for the sample SOAP method provided below.

## 7.1  Implementing the Web Service

You can access the web service through your development tool at http://services.highbeam.com/service/headline.svc.

After adding the service to your development tool, you will need to construct the query object and results object within the web page's code in order to retrieve and display results.

### 7.1.1  Input Example

The SOAP/Web Service method can be used by a variety of development languages. Various code examples are shown below.

#### 7.1.1.1   C# (.NET)

```
class Test
{
    static void Main()
    {
        HeadlineClient client = new HeadlineClient();

        // Use the 'client' variable to call operations on the service.

        // Always close the client.
        client.Close();
    }
}
```

#### 7.1.1.2   Visual Basic

```
Class Test
    Shared Sub Main()
        Dim client As HeadlineClient = New HeadlineClient()
        ' Use the 'client' variable to call operations on the service.

        ' Always close the client.
        client.Close()
    End Sub
End Class
```

## 7.1.2  Sample SOAP Request (.NET)

Below is a sample SOAP request to Headline Direct.

```xml
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <To s:mustUnderstand="1"
    xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">http://services.highbeam.com/service/Headline.svc/bs</To>
    <Action s:mustUnderstand="1"
    xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">HighBeam.Services/IHeadline/SearchByFastParam</Action>
  </s:Header>
  <s:Body>
    <SearchByFastParam xmlns="HighBeam.Services">
      <param xmlns:a="Highbeam.Services.Data" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:Author i:nil="true"></a:Author>
        <a:EndDate>0001-01-01T00:00:00</a:EndDate>
        <a:NumResultsRequested>10</a:NumResultsRequested>
        <a:PublicationSearchType>INCLUDE_ALL</a:PublicationSearchType>
        <a:Publications i:nil="true"
        xmlns:b="http://schemas.microsoft.com/2003/10/Serialization/Arrays"></a:Publications>
        <a:Query>siberian husky</a:Query>
        <a:RefId>1234</a:RefId>
        <a:RelatedId i:nil="true"></a:RelatedId>
        <a:ShowPreview>false</a:ShowPreview>
        <a:ShowTeaser>false</a:ShowTeaser>
        <a:ShowVectors>false</a:ShowVectors>
        <a:SortDirection>ASC</a:SortDirection>
        <a:SortType>RANK</a:SortType>
        <a:Sources i:nil="true"></a:Sources>
        <a:StartAt>0</a:StartAt>
        <a:StartDate>0001-01-01T00:00:00</a:StartDate>
        <a:Title i:nil="true"></a:Title>
      </param>
    </SearchByFastParam>
  </s:Body>
</s:Envelope>
```

## 7.1.3  Sample output

Below is a sample of the data that will be returned via the SOAP request.  This example includes data for the search results set as well as a single article.

```xml
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <SearchByFastParamResponse xmlns="HighBeam.Services">
      <SearchByFastParamResult xmlns:a="Highbeam.Services.Data"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <a:Count>10</a:Count>
        <a:Error></a:Error>
        <a:Hits>10</a:Hits>
        <a:Host i:nil="true"></a:Host>
        <a:Query>siberian husky</a:Query>
        <a:Results>
          <a:SearchResult>
            <a:Author>CATHY KRZECZKOWSKI</a:Author>
            <a:BodyWordCount>618</a:BodyWordCount>
            <a:DocId>1P1:22382076</a:DocId>
            <a:DocumentClass></a:DocumentClass>
            <a:LogoUrl>http://www.highbeam.com/Aspx/GetPubLogo.aspx?pub=The+Record+(Bergen+County%2c+NJ)</a:LogoUrl>
            <a:Num>1</a:Num>
            <a:Preview></a:Preview>
            <a:PreviewLength>0</a:PreviewLength>
            <a:Publication>The Record (Bergen County, NJ)</a:Publication>
            <a:PublicationDate>1998-03-26T00:00:00</a:PublicationDate>
            <a:Rank>4576</a:Rank>
            <a:Size>0</a:Size>
            <a:Source>NEWS</a:Source>
            <a:Teaser></a:Teaser>
            <a:Title>HOW TO KEEP SIBERIAN HUSKIES HAPPY AND HEALTHY</a:Title>
            <a:Url>http://www.highbeam.com/doc/1P1:22382076.html</a:Url>
            <a:Vectors i:nil="true"></a:Vectors>
          </a:SearchResult>
        </a:SearchResult>
        </a:Results>
        <a:Status>SUCCESS</a:Status>
        <a:Time>419</a:Time>
        <a:TotalHits>2129</a:TotalHits>
      </SearchByFastParamResult>
    </SearchByFastParamResponse>
  </s:Body>
</s:Envelope>
```

# 8 Appendix A: Headline Direct Parameter List and DTD for XML and Javascript Versions

## 8.1 Headline Direct URL Parameters for the XML and Javascript versions

| Parameter | Required? | Possible Values | Default Value | Description |
|---|---|---|---|---|
| query | YES | String | None | Query term to search |
| refid | YES | String | None | Refid associated to search for HighBeam to track your referrals |
| srctype | NO | ALM    NEWS<br>BOOKS  PICS<br>DICT    PREL<br>ENCY   THES<br>MAGS  TRANS<br>MAPS   WHITEPAPER<br>WIRE | None | Include the source types entered as part of the search.   Multiple sources will be entered as srctype=alm\|books |
| title | NO | String | None | Search for documents containing the title words you specify. |
| author | NO | String | None | Search for documents by author specified. |
| publication | NO | String | None | Search for documents from the publications included. Multiple entries can be entered as publication=title 1\|title 2 (separated by a vertical pipe) |
| searchtype=exclude_all &publication= | NO | String | None | Exclude documents from the entered publications in the search.<br>Both parameters must appear to exclude titles, as follows:<br>Searchtype=exclude_all&publication=Title<br>Note that multiple titles can be added as follows:<br>Pub=Title 1\| Title 2 (use a vertical pipe character to separate) |
| pubdate | NO | Date | None | Limit search to documents from a specific date. Should appear as PubDate=mm-dd-yyyy |
| begindate | NO | Date | None | Limit search to documents that were published AFTER a specific date. Should appear as BeginDate=mm-dd-yyyy |
| enddate | NO | Date | None | Limit search to documents that were published BEFORE a specific date. Should appear as EndDate=mm-dd-yyyy |
| begindate= &enddate= | NO | Date | None | Limit search to documents that were published BETWEEN two specific dates.<br>Should appear as BeginDate=mm-dd-yyyy&EndDate=mm-dd-yyyy<br>In this case, BeginDate is the first date of your search range and EndDate is the last date of the search range. |
| datetype | NO | Integer | None | Limit search to documents that were published during the last N months. Should appear as datetype=6 (for last 6 months) |
| numresults | NO | 1-30 | 10 | Limit the number of results returned. Only add this to the URL if you'd like to see more than or less than 10 results. |
| teaser* | NO | True<br>False | NO | Display teaser text for articles returned in the search. |
| preview* | NO | True<br>False | NO | Display first 300 characters of the article. |
| previewlength* | NO | 1-200 | None | Limit the number of characters shown in the preview. |
| sorttype and sortdirection | NO | sorttype: pubdate, rank,<br>sortdirection:asc, desc | None | Indicate whether to sort by date or relevancy (or both), and in ascending or descending order. |
| spell | NO | True<br>False | NO | Indicate whether you'd like the search engine to correct a potential misspelling when searching. |

**Note** Parameters that appear with an * are available for the XML output version only.

## 8.2   Headline Direct DTD

### 8.2.1   Elements

```
<?xml version="1.0" encoding="UTF-8"?>
<!ELEMENT srl (status, host, time, count, reason, query, error)>
<!ELEMENT l (n+)>
<!ELEMENT n (no, rank, title, pub_date, publication, author, src_type,   processing_time,
doc_id, body_word_cnt, docclass, url, lo, originalquery, previewlengthactual, size)
<!ELEMENT no (#PCDATA)>
<!ELEMENT rank (PCDATA)>
<!ELEMENT title (#CDATA)>
<!ELEMENT pub_date (#CDATA)>
<!ELEMENT publication (#CDATA)>
<!ELEMENT author (#CDATA)>
<!ELEMENT src_type (#CDATA)>
<!ELEMENT processing_time (#PCDATA)>
<!ELEMENT doc_id (#PCDATA)>
<!ELEMENT body_word_cnt (#PCDATA)>
<!ELEMENT docclass (#PCDATA)>
<!ELEMENT url (#CDATA)>
<!ELEMENT lo (#PCDATA)>
<!ELEMENT original_query (#PCDATA)>
<!ELEMENT previewactuallength (#PCDATA)>
<!ELEMENT size (#PCDATA)>
<!ELEMENT teaser (#CDATA)>
<!ELEMENT preview (#CDATA>
<!ELEMENT status (#PCDATA)>
<!ELEMENT count (#PCDATA)>
<!ELEMENT reason (#PCDATA)>
<!ELEMENT query (#PCDATA)>
```

## 8.2.2 Key

<!- key:
srl: search result list
l: list
no: rank order number
rank: rank value for relevancy
title: article title
pub_date: publish date of the article
publication: publication name
author: author name
source_type: type of publication (see a list of types and their meanings in section 4.2.1)
processing_time: Date/Time the article was loaded to HighBeam.com
doc_id: Identifier for the document in HighBeam's archive
body_word_cnt: number of words in the document
docclass: Indicates whether the article is from the free or paid collection
url: document URL
lo: publisher icon/publication logo
originalquery: query term this result appeared for
previewactuallength: # of characters in the preview, when the preview element is shown
size: number of characters in the entire article
status: SUCCESS | NO RESULT
host: server environment
time: query run-time in ms
count: number entries in the search result list
reason: populated when status is failure
query: query used to process search
-- end key -->

# 9 Appendix B: SOAP/Web Service Method Parameters and DTD

## 9.1 SOAP/Web Service Parameters

| Parameter | Required? | Possible Values | Default Value | Description |
|---|---|---|---|---|
| Query | YES | String | None | Query term to search |
| Refid | YES | String | None | Refid associated to search for HighBeam to track your referrals |
| Sources | NO | ALM    NEWS<br>BOOKS  PICS<br>DICT    PREL<br>ENCY   THES<br>MAGS   TRANS<br>MAPS   WHITEPAPER<br>WIRE | None | Include the source types entered as part of the search.   Multiple sources will be entered as an ArrayList (by adding the individual source type entries). |
| Title | NO | String | None | Search for documents containing the title words you specify. |
| Author | NO | String | None | Search for documents by author specified. |
| PubSearchType | NO | include_all<br>exclude_all | Include_all | Exclude documents from the entered publications in the search.<br>Both parameters must appear to exclude titles, as follows:<br>Pubsearchtype=exclude_all&publication=Title<br>Note that multiple titles can be entered as an ArrayList (by adding the individual publication entries) |
| Publications | NO | String | None | Search for documents from the publications included. Note that multiple publications can be entered as an ArrayList (by adding the individual publication entries). |
| StartDate | NO | Date | None | Limit search to documents that were published AFTER a specific date.<br>Should appear as StartDate=mm-dd-yyyy |
| EndDate | NO | Date | None | Limit search to documents that were published BEFORE a specific date.<br>Should appear as EndDate=mm-dd-yyyy |
| NumResultsRequested | NO | 1-30 | 10 | Limit the number of results returned. Only add this to the URL if you'd like to see more than or less than 10 results. |
| ShowTeaser | NO | True<br>False | NO | Display teaser text for articles returned in the search. |
| ShowPreview | NO | True<br>False | NO | Display first 300 characters of the article. |
| PreviewLength | NO | 1-300 | None | Limit the number of characters shown in the preview. |
| SortType | NO | Pubdate<br>Rank | None | Indicate whether to sort by date (pubdate), or relevancy (rank). |
| SortDirection | NO | Asc<br>desc | None | Indicate whether to sort in ascending or descending order. |

**Web Service DTD**

### 9.1.1 Elements

```
<Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
<!Element Search Results (Status, Host, Time, Count, Query, Hits, TotalHits, Error,
Results)>
<! Element Search Result (Rank, Title, Publication, Author, Source, DocId,
PublicationDate, BodyWordCount, PreviewLength, Size, Preview, Teaser, Vectors, Url,
LogoUrl, DocumentClass, Num)>
<! Element Rank (Integer)>
<! Element Title (String)>
<! Element Publication (String)>
<! Element Author (String)>
<! Element Source (String)>
<! Element DocId (String)>
<! Element PublicationDate (Date)>
<! Element BodyWordCount (Integer)>
<! Element PreviewLength (Integer)>
<! Element Size (Integer)>
<! Element Preview (String)>
<! Element Teaser (String)>
<! Element Vectors (String)>
<! Element Url (String)>
<! Element LogoUrl (String)>
<! Element DocumentClass (String)>
<! Element Num (Integer)>
<! Element Status (String)>
<! Element Host (String)>
<! Element Time (Integer)>
<! Element Count (Integer)>
<! Element Query (String)>
<! Element Hits (Integer)>
<! Element TotalHits (Integer)>
<! Element Error (String)>
```

## 9.1.2 Key

```
<!- key:
    Search Result: Search Result Elements
    Rank: rank value for relevancy
    Title: Document Title
    Publication: name of publication
    Author: Author name
    Source: type of publication
    DocId: Identifier for the document in HighBeam's archive
    PublicationDate: publish date of the article
    BodyWordCount: number of words in the document
    PreviewLength: # of characters in the preview, when the preview element is shown
    Size:character count of full article
    Preview: First 300 characters of the document
    Teaser: most relevant part of the article for the search term
    Vectors: related keywords for the current document
    Url: Document URL
    LogoUrl: publisher icon/publication logo
    DocumentClass: Indicates whether the article is from the free or paid collection
    Num: results list order number
    Status: SUCCESS | NO RESULT
    Host: server environment
    Time: query run-time in ms
    Count:number entries in the search result list
    Query: query term this result appeared for
    Hits: Total number of search results for the term
    TotalHits (Integer)>
    Error: Error Description, when an error occurs
    -- end key -->
```

# 10 Appendix C: Previous versions of Headline Direct

Partners who began using Headline Direct prior to version 4.0 will find that the functionality they accessed is still available. Several parameters have been modified for version 4.0, and their previous definitions and usage information appears in this section.

## 10.1 Legacy Parameters still supported

The table below includes a list of parameters used in previous versions of Headline Direct that are still supported in the current version. Any parameters that exist in the current version that were available in previous versions are noted in the table in Appendix A.

| Parameter | Required? | Possible Values | Default Value | Description |
|---|---|---|---|---|
| Srcmags | NO | Boolean | YES | Search Magazines |
| srcbooks | NO | Boolean | YES | Search Books |
| srcpics | NO | Boolean | YES | Search Pictures |
| Srcmaps | NO | Boolean | YES | Search Maps |
| Srcnews | NO | Boolean | YES | Search Newspapers |
| Srctvrad | NO | Boolean | YES | Search TV and Radio Transcripts |
| SRCREFS | NO | Boolean | YES | Search All Reference Materials |
| SRCENCYCLOPEDIA | NO | Boolean | YES | Search Encyclopedia |
| SRCALMANAC | NO | Boolean | YES | Search Almanacs |
| SRCDIC | NO | Boolean | YES | Search Dictionaries |
| SRCTHESAURUS | NO | Boolean | YES | Search Thesauruses |
| | | | | **Note on Source Types: If none specified, all will be used.** |
| datetype | NO | ["ALL"] \| ["MATCHES"] \|["BEFORE"] \| ["AFTER"] \| ["BETWEEN"] \| WHOLE NUMBER INTEGER | None | Defines the meaning of dateone and datetwo parameters below. |
| | | | | MATCHES is used with dateone field |
| | | | | BEFORE is used with dateone field |
| | | | | AFTER is used with dateone field |
| | | | | BETWEEN is used with dateone and datetwo fields |
| | | | | If a number is used, range will be limited to the last *n* months. |
| dateone | NO | *mm-dd-yyyy* | *None* | Date specification. See below for detailed instructions |
| datetwo | NO | *mm-dd-yyyy* | *None* | Date specification. See below for detailed instructions |
| resultdocs | NO | *number* | *10* | Number of documents to be displayed (1-30). |

#### 10.1.1.1 Source Type Searching

If you began using Headline Direct before v4.0, and want to use source-type searching, you may use the same parameters that were available at that time; however, note that prior to version 4.0, fewer source types were available for searching.

Each source type has a unique source type in the URL, as defined below:

| Source Type | URL Code |
|---|---|
| Almanacs | srcalmanac |
| Books | srcbooks |
| Dictionaries | srcdic |
| Encyclopedias | srcencyclopedia |
| Magazines | scmags |
| Maps | srcmaps |
| Newspapers | srcnews |
| Pictures/Images | srcpics |
| Thesauruses | srcthesaurus |
| Transcripts | srctvrad |
| All Reference* | srcrefs |

* All Reference Source Types include: Almanacs, Books, Dictionaries, Encyclopedias, and Thesauruses.

For example, if you want to research articles about diamonds from magazines only, your URL might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&srcmags=true

If you wanted to search both magazines and encyclopedias, it might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&srcmags=true&srcencyclopedia=true

Similarly, if you wanted to search on all reference sources, including almanacs, books, dictionaries, encyclopedias and thesauruses, you can use the "All Reference" code. In this case, your URL might look like:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&srcrefs=true

Note that when using the "All Reference" code, you cannot exclude individual reference source types. In order to pick only certain reference source types, you must enter each into the URL separately.

If you want to search reference sources plus others, such as newspapers and magazines, your URL might look like this:

http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&srcrefs=true&srcnews=true&srcmags=true

**10.1.1.2  Date Searching**

If you began using Headline Direct before v4.0, and applied date ranges to your searches, you used different parameters to submit dates than those used in v4.0.  This method uses the datetype parameter.  In addition to indicating what **datetype** to use on the search, you will also supply a **dateone** and/or **datetwo** value.

| Date Search | DateType | Description |
|---|---|---|
| All Dates | (none) | No filter on date (default value)* |
| Specific Date | MATCHES | Article date matches dateone parameter |
| Before a specific date | BEFORE | Search Articles whose publish date is prior to the dateone parameter |
| After a specific date | AFTER | Search Articles whose publish date is after to the dateone parameter |
| Between two dates | BETWEEN | Article date is between dateone and datetwo parameter |
| Last n months | (Whole Number Integer) | Article date is within n months of current date, where the parameter entered is datetype=n |

*If you want to search articles from all dates, you do NOT need to use any additional parameters for the dates, as Headline Direct searches all dates by default.

Note that if want to limit your search by date, and you use the dateone or datetwo parameters, dates should be entered in the format MM-DD-YYYY.

For example, if you wanted to search documents about diamonds that were published on January 1 2000, your URL would look like this:

[http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=matches&dateone=01-01-2000](http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=matches&dateone=01-01-2000)

If you wanted to search documents that were published before January 1, 2000, your URL would look like this:

[http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=before&dateone=01-01-2000](http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=before&dateone=01-01-2000)

If you wanted to search documents that were published after January 1, 2000, your URL would look like this:

[http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=after&dateone=01-01-2000](http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=after&dateone=01-01-2000)

If you wanted to search documents about diamonds published between January 1 and March 31, 2000, your URL would look like this:

[http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=between&dateone=01-01-2000&datetwo=03-31-2000](http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=between&dateone=01-01-2000&datetwo=03-31-2000)

And, if you wanted to search only documents that were published in the last 6 months, the URL would look like this:

[http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=6](http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&datetype=6)

### 10.1.1.3 Limiting the Number of Search Results

If you began using Headline Direct before v4.0, and included a parameter to control the number of results returned from your query, you probably used the resultdocs parameter. This works the same as the numresults parameter in v4.0.

For example, if you wanted to limit your results to 8 documents, your query might look like this:

[http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&resultdocs=8](http://services.highbeam.com/headlinefeed.aspx?query=diamond&refid=test&resultdocs=8)

## 10.2 Headline Direct v3.10 DTD

Version 3.10 and earlier of Headline Direct uses a document node to provide document details for each result found.  Many of the elements' data is provided from the site in CDATA fields.  The elements, their descriptions, and whether they are provided in CDATA fields or not is listed below:

| Element | Description | Format |
|---------|-------------|--------|
| <t> | Title of Document | CDATA |
| <d> | Publication Date of Document | MM/DD/YYYY |
| <p> | Publication Name | CDATA |
| <a> | Author of Document | CDATA |
| <s> | Source Type | CDATA |
| <u> | URL of Document | CDATA |
| <lo> | Link of the publication's logo image | URL |

```
<?xml version="1.0" encoding="UTF-8"?>
<!ELEMENT srl (status, count, reason, version l?)>
<!ELEMENT l (n+)>
<!ELEMENT n (t,u,d,r,p,a,z,s,lo?)>
<!ELEMENT t (#CDATA)>
<!ELEMENT u (#CDATA)>
<!ELEMENT d (#PCDATA)>
<!ELEMENT r (#PCDATA)>
<!ELEMENT p (#CDATA)>
<!ELEMENT a (#CDATA)>
<!ELEMENT z (#PCDATA)>
<!ELEMENT s (#PCDATA)>
<!ELEMENT status (#PCDATA)>
<!ELEMENT count (#PCDATA)>
<!ELEMENT reason (#PCDATA)>
<!ELEMENT version (#PCDATA)>
<!ELEMENT lo (#PCDATA)>

<!- key:
srl: search result list
l: list
n: document node
t: title
u: document url
d: publication date
r: relevancy (based on 100)
p: publication name
a: author
z: size in bytes
s: source type (MAGAZINES,NEWSPAPERS,TVRAD,BOOKS,PICTURES)
lo: publisher icon/logo url
status: OK | FAILURE | THROTTLE
count: number entries in the search result list
reason: populated when status is failure.
version: version type (default value=M)
-- end key -->
```