Product Search
API Documentation

v2.1

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Introduction

The Retailigence Product Search API allows developers to make a variety of online-to-offline retail oriented queries. Typical use cases include searching for products sold at nearby store locations, checking the current availability of products at a specific store location, or listing nearby retailers that sell specific products.

API requests are made via HTTP(s) GET/POST/PUT or DELETE. Responses are returned in JSON format.

API Endpoints

Endpoint	Description	Request
products	Returns results for location-based product searches by keyword, barcode, etc.	GET
locations	Returns retailers and store locations carrying products matching the query criteria.	GET
events	Reports user actions. Requires authorization over secure HTTP, specifying username and password provided by Retailigence.	POST

Required GET Parameters

The parameters in the table below need to be included in every request to the Retailigence API regardless of the endpoint used. Please note: All parameters used in the API are case insensitive, with the exception of your API Key.

Parameter	Description	Allowable Values
apiversion	This is the version of the API you want to call.	v2.1, v2.0 or v1.2
apikey	Your API Key	
requestorid	The API requires a User ID be provided with each request, where the ID does not change for subsequent requests.	Please see the API FAQ for more info.
userlocation	An indicator of user's search location.	Comma-separated lat/long pair, ZIP code, or IP Address

Product Indicator Parameters

In addition to the required parameters in the table above, **every request** to the Retailigence API must include **one of the six indicators** of product or product type listed in the table below.

Parameter	Description	Allowable Values
brand	Specifies a desired brand manufacturer.	
productcategory	Specifies a top-level product category.	Please see the API FAQ for the Retailigence Top Level Category Hierarchy
keywords	Keywords for a keyword query.	
model	Specifies a product model.	

Parameter	Description	Allowable Values
name	Search by product name.	
productid	A specific product identifier typically attached to one product.	You can utilize either a UPC, EAN, ISBN, SKU, or Retailigence's internal Product ID string for this parameter.

Production & Test Keys

This documentation will use Production URLs in the examples. Until an API License Agreement has been signed and a Production Key issued, developers will need to use a Test API Key and URL structure. You may request a Test API Key at: http://www.retailigence.com/developers/request-key/.

Please be aware that the Retailigence Test API terms state that a Test Key may not be used in any end-user facing applications. The full terms of using a Test Key may be viewed at http://developers.retailigence.com/test-api-terms.

URL Structure

The following URL is the basis for all PRODUCTION API requests.

http://api.retailigence.com/<apiversion>/<endpoint>?<parameters>

The following URL is the basis for all TEST API requests.

http://apitest.retailigence.com/<apiversion>/<endpoint>?<parameters>

Basic Product or Location Query Examples With Required Elements

Complete and well-formed queries for a barcode and keyword product or location search are shown below.

Keyword
http://api.retailigence.com/<version>/<product_or_location>?apikey=<apikey>&requestorid=<userid>&userlocation=92063&keywords=board+games

Barcode
http://api.retailigence.com/<version>/<product_or_location>?apikey=<apikey>&requestorid=<userid>&userlocation=92063&productid=00032244045554

Notes On Syntax

The following items on syntax for API usage are generally applicable to input parameters where noted in the description field of the tables in the ensuing sections:

- Input parameters are delimited by a "&" character
- Lists can be submitted for search using a comma-delimited string (e.g., to find multiple barcodes, use &productid=1234567890,3423517389,0987855305)
- Wildcard operators only work when used with the model, name or productid parameter.

Keyword search with AND operator

This returns results with "suede" and "shoes" anywhere in the product information. Note that AND and + are interchangeable.

http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<user123>&userlocation=<37.5,-122.3>&keywords=suede+shoes

Keyword search for a phrase

This returns results containing the exact phrase "suede shoes" anywhere in the product information.

http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<user123>&userlocation=<37.5,-122.3>&keywords=%22Suede+shoes%22

Keyword search with NOT

This returns results with "suede" but not with the word "shoe" anywhere in the product information. Note that NOT and ! are interchangeable and the operator works on productid, locationid, and retailerid as well as keywords.

http://api.retailigence.com/v2.1/products.htm?<apikey>&requestorid=<user123>&userlocation=<37.5,-122.3>&keywords=Suede+!shoes

Keyword wildcard search with * operator

This returns results containing the prefix listed before the * operator. It is intended primarily to be used when searching for store SKU or Model information. We recommend using it with a specific retailerid as well.

http://api.retailigence.com/v2.1/products.htm?<apikey>&requestorid=<user123>&userlocation=<37.5,-122.3>&retailerid=<41b26926-8354-4e2c-9a0b-9ac2bdb21933>productid=123456*

Notes On requestorid

The API requires that a requestorid parameter be provided with each request, where this User ID does not change for subsequent requests. This information will be used to identify patterns of product search & discovery, and other popular behaviors, which will help us improve our service over time. Note that Retailigence is not collecting Personally Identifiable Information (PII), so one-way hash values should be used wherever possible. The following are our preferred formats for the requestorid on different devices:

- Mobile phone-based application: Please submit a unique identifier for the mobile device. This should be the Advertiser ID in iOS 6 & 7, ANDROID_ID for Android devices, etc.
- Browser-based application: Please submit a persistent cookie-based requestorid that remains constant for that user/device over time.

Error Handling & Informational Messages

HTTP Status codes are used to indicate the general classification of a problem or message.

Status Code	Description
400 (Bad Request)	Any case where a parameter is invalid, or a required parameter is missing.
401 (Unauthorized)	The endpoint requires authentication or the authentication provided was invalid.
403 (Forbidden)	The user was not authorized to perform the action specified
404 (Not Found)	Either the endpoint does not exist, or the resource being requested was deleted and no longer exists.
405 (Method Not Allowed)	Attempting to use POST with a GET-only endpoint, or vice-versa.
415 (Media Type Not Allowed)	You attempted to upload a file type that either is not supported or whose format could not be verified by the server.
500 (Internal Server Error)	Internal server error.

In addition to the HTTP status code, the following messages may be returned.

Status Code	Description
INFO_API_NO_RESULTS_FOUND	No results were found for your search.
ERROR_API_SEVERE_ERROR	Severe unrecoverable error.
ERROR_API_INVALID_REQUEST	Something is wrong with the Search Request.
ERROR_APIKEY_INVALID	The API Key passed in the request is invalid.
ERROR_APIKEY_CALLING_TOO_FREQUENTLY	The API Key passed in the request is calling too frequently.
ERROR_APIKEY_CALL_LIMIT_EXCEEDED	The API Key passed in the request has exceeded the daily limit for today.
ERROR_APIKEY_ACCESS_DENIED	The API Key passed in the request does not have access to the requested service.

URL GET /products

Returns results for location-based product searches by keyword, barcode, etc.

Basic Product Keyword Query
http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<user123>&userlocation=<92063>&keywords=<chutes+ladders>

Basic Product Barcode Query
http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<user123>&userlocation=<92063>&productid=<00032244045554>

Parameter	Description	Allowable Values	Required	Default
apikey	API Key assigned to the developer for a named application (each unique application must have its own unique API Key).		Yes	
requestorid	Unique identifier of the caller. (See section 2).		Yes	
userlocation	An indicator of search location - comma-separated latitude/longitude pair (e.g., 33.121193,-122.442573), ZIP code or IPAddress indicating user location.	Lat/long pair ZIP code User IP Address	Yes	
brand	Search by product brand name.			
productcategory	Specifies a product category.		At least one of these indicators of product or product type is required	
keywords	Keywords for keyword query.			
model	Search by product model.			
name	Search by product name.			
productid	A product identifier which can be any of UPC, EAN, SKU or other identifiers a retailer might provide. This parameter supports lists.			
callback	JSON-P function name for response		No	
expandresults	If set to true, the API will be less restrictive in responding to a keyword query which may produce more results, but may be less relevant for certain keywords.	True False	No	False
locationid	Query filter to restrict results to a specific Retail location. This parameter supports lists.		No	
maxlocationsperretailer	Controls the maximum number of store locations that will be returned for any one retailer.		No	1
maxperretailer	Controls the maximum number of results that will be returned for any one retailer.		No	3
pagesize	Number of results to return for a single call.		No	10
page	Requested page		No	1
range	Search radius for location-based query (in "Units" – see below).		No	10
retailercategory	Specifies a retailer category.		No	
requested	JSON-P id for response		No	
retailerid	Query filter to restrict results to a specific retailer. This parameter supports lists.		No	

Parameter	Description	Allowable Values	Required	Default
strict	Controls the sensitivity of a name search. Value may be true, false or semi. True requires an exact case-insensitive match on name. Semi attempts an exact match first, and returns the result if successful. Otherwise a tokenized match is performed.	true false semi	No	false
units	Units for distances used in request and response.	M (miles) K (kilometers)	No	M

Output Fields

Output fields are listed alphabetically without respect to actual output order.

JSON Field	Description	Always Present
count	Number of results in the set	Yes
id	UUID assigned to the result (useful for debugging)	Yes
messages	See Error Handling and Messages section	Yes
request		Yes
serverId	Name of the server being queried (useful for debugging)	Yes
version	Example 2.1 – this is the version of the API.	Yes

Request

JSON Field	Description	Always Present
category	Category that was used for the query.	No
group	Groups used for query	No
id	Example 2.1 – this is the version of the API.	Yes
keywords	Keywords used for query	No
location	User location information (e.g., lat/long, ZIP code, IP address) used for query	Yes
locationId	Location IDs used for query	No
name	Product Name used for query	No
page	Page number of results	Yes
pageSize	Maximum number of results per page	Yes
productId	Product identifier (e.g,. barcode, SKU, ISBN, etc.) used for the query	No
retailerId	Retailer IDs used for query	No
strict	Strict flag	No

Results

JSON Field	Description	Always Present
promotionalContent		No
searchResult		No

PromotionalContent

JSON Field	Description	Always Present
promotion	String containing any promotional information	Yes

Retailer

JSON Field	Description	Always Present
id	UUID of a Retailer in the results	No
logo	URL for image of retailer logo	No
logosq	URL for a square image of retailer logo	No
name	Name of a Retailer in the results	No
promotionalContent		No

Location

JSON Field	Description	Always Present
address1	Address Line 1	No
address2	Address Line 2	No
distance	Distance to this location	No
hours	Store open hours	No
id	UUID for a Location in the results	No
latitude	Latitude of this location	No
longitude	Longitude of this location	No
mapLink	Google Maps link to this location	No
name	Name of a Location in the results	No
phone	Phone number at the location	No
promotionalContent		No
retailer	Retailer	No
tnavLink	Telenav Scout driveto link to this location	No

Address

JSON Field	Description	Always Present
city	City	No
country	ISO 2 character country code	No
line1	Street Address	No
line2	Street Address	No
state	State	No
zip	Zip/Postal Code	No

Result

JSON Field	Description	Always Present
category	Array of Category Strings	No
currency	Currency that the price is expressed as.	No

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JSON Field	Description	Always Present
descriptionLong	Long Description	No
descriptionShort	Short Description	No
distance	Distance from the caller	No
externalproductid	Product ID as reported by the original data source. This ID is external to the Retailigence system.	No
id	UUID of the product in the current result	No
images	Array of ImageInfo objects	No
lastUpdated	Timestamp to indicate the age of the record.	No
location	Location	No
brand	Manufacturer Brand Name	No
msrp	MSRP Price	No
msrpCurrency	MSRP Currency	No
name	Product Name	No
onlineProductOnly	Flag to indicate online only products	No
price	Price of the product.	No
retlocationId	Location ID as reported by the retailer. This ID is external to the Retailigence system.	No
size	Size of the product if applicable	No
url	URL for this product.	No

Distance

XML Field	Description	Always Present
distance	Distance	No
units	Units the distance is expressed in. May be miles or kilometers.	No

URL GET /locations

Returns Retailers and Store Locations carrying products matching the query criteria. No product information is returned in the results.

Basic Location Keyword Query
http://api.retailigence.com/v2.1/locations?apikey=<apikey>&requestorid=<userid>&userlocation=92063&keywords=chutes+ladders

Basic Location Barcode Query
http://api.retailigence.com/v2.1/locations?apikey=<apikey>&requestorid=<userid>&userlocation=92063&productid=00032244045554

Parameter	Description	Allowable Values	Required	Default
apikey	API Key assigned to the developer.		Yes	Yes
requestorid	Unique identifier of the caller. (See section 2).		Yes	Yes
userlocation	An indicator of search location - comma-separated latitude/longitude pair (e.g., 33.121193,-122.442573), ZIP code or IPAddress indicating user location.	Lat/long pair ZIP code User IP Address	Yes	Yes
callback	JSON-P function name for response		No	No
brand	Search by product brand name.		At least one of these indicators of product or product type is required	
productcategory	Specifies a top-level product category.			
keywords	Keywords for keyword query.			
model	Search by product model.			
name	Search by product name.			
productid	A product identifier which can be any of UPC, EAN, SKU or other identifiers a retailer might provide. This parameter supports lists.			
locationid	The unique identifier of a retail location. This parameter supports lists.		No	No
name	Search for a location by product name		No	No
page	Requested Page		No	1
pagesize	Number of results to return for a single call.		No	10
productid	A product identifier which can be any of UPC, EAN, SKU or other identifiers a retailer might provide. This parameter supports lists.		No	No
range	Search radius for location-based query (in "Units" – see below).		No	10
retailercategory	Retailer Category search.		No	
requested	JSON-P id for response		No	
retailerid	Query filter to restrict results to a specific retailer. This parameter supports lists.		No	

Parameter	Description	Allowable Values	Required	Default
strict	Controls the sensitivity of a name search. Value may be true, false or semi. True requires an exact case-insenstive match on name. Semi attempts an exact match first, and returns the result if successful. Otherwise a tokenized match is performed.	true false semi	No	false
units	Units for distances used in request and response.	m (miles) k (kilometers)	No	m

Output Fields

Output fields are listed alphabetically without respect to actual output order.

RetailigenceAPIResult

JSON Field	Description	Always Present
count	Number of results in the set	Yes
id	UUID assigned to the result (useful for debugging)	Yes
messages	See above	No
request		Yes
serverId	Name of the server being queried (useful for debugging)	Yes
version	Example 2.1 – this is the version of the API.	Yes

Request

JSON Field	Description	Always Present
category	Category that was used for the query.	No
group	Groups used for query	No
id	UUID for the request in the results	Yes
keywords	Keywords used for query	No
location	User location information (e.g., lat/long, ZIP code, IP address) used for query	No
locationId	Location IDs used for query	No
name	Product Name used for query	No
page	Page number of results	Yes
pageSize	Maximum number of results per page	Yes
productId	Product identifier (e.g,. barcode, SKU, ISBN, etc.) used for the query	No
retailerId	Retailer IDs used for query	No
strict	Strict flag	No

Results

JSON Field	Description	Always Present
Retailer		Yes

Retailer

JSON Field	Description	Always Present
id	UUID of a Retailer in the results	No
locations		No
logo	URL for image of retailer logo	No
logosq	URL for a square image a retailer logo	No
name	Name of a Retailer in the results	No
promotionalContent		No

Locations

JSON Field	Description	Always Present
Location		No

Location

JSON Field	Description	Always Present
address	Address	No
distance	Distance	No
id	UUID for a Location in the results	No
location	Location	No
mapLink	Google Maps link to this location	No
name	Name of a Location in the results	No
phone	Phone number at the location	No
promotionalContent		No
retailer	Retailer	No
retLocationId	Location ID as reported by the retailer. ID is external to the Retailigence system	No
tnavLink	Telenav Scout driveto link to this location	No

Address

JSON Field	Description	Always Present
city	City	No
country	ISO 2 character country code	No
line1	Street Address	No
line2	Street Address	No
state	State	No
zip	Zip/Postal Code	No

Distance

JSON Field	Description	Always Present
distance	Distance	No
units	Units the distance is expressed in. May be miles or kilometers.	No

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GeoLocation

JSON Field	Description	Always Present
latitude		No
longitude		No

URL POST /events

Reports a user action. This method requires basic authorization over secure HTTP, specifying the username and password provided by Retailigence. If you don't have a username and password, please email api@retailigence.com.

Sample
https://api.retailigence.com/v2.1/events

Parameter	Description	Allowable Values	Required	Default
event	Code for the event being conducted by the end user	See event table below	Yes	
locationId	Location ID associated with the store location being acted on by the end user		No	
originalRequestId	RequestID associated with the query that returned the result being acted on by the end user		Yes	
productId	Product ID associated with the product being acted on by the end user		No	
retailerId	Retailer ID associated with the retailer being acted on by the end user		No	

Event Codes

Code	Description
DISPLAY_RESULT	Indicates that the API response was displayed in the user UI.
CALL_STORE	Indicates the end user called the store location embedded in the results.
VIEW_LOCATION_DETAIL	Indicates the end user clicked on any link on your UI to get more information related to store location such as maps, get directions, show address, etc.
VIEW_PRODUCT_DETAIL	Indicates the end user clicked on a product listing for more information such as description, image, color, size, etc.
VIEW_RETAILER_DETAIL	Indicates the end user clicked on a retailer for more information.

Event Tracking Examples

The following is an example of two DISPLAY_RESULT events being reported in a single call:

```
curl -u username:password -X POST -d '[
    {
        "originalRequestId":"2d95406a-6a3a-11e2-a0ed-f23c91aec05e",
        "event":"DISPLAY_RESULT",
        "productId":"ccb45b36-6a3a-11e2-a0ed-f23c91aec05e",
        "locationId":"d544a184-6a3a-11e2-a0ed-f23c91aec05e"
    },
    {
        "originalRequestId":"2d95406a-6a3a-11e2-a0ed-f23c91aec05e",
        "event":"DISPLAY_RESULT",
        "productId":"f6ce4b7a-6a3a-11e2-a0ed-f23c91aec05e",
        "locationId":"d544a184-6a3a-11e2-a0ed-f23c91aec05e"
    }
]' https://api.retailigence.com/v2.1/events
```

Common Use Cases

Obtain Top 10 items per retailer

By design, the API seeks diversity in the retailers presented to a calling application. Many retailers carry multiple products that fit any given set of search criteria. To address this, the API limits the number of products shown for any one retail location to 5. This can be adjusted for any specific use case using the maxperretailer input parameter.

The following URL will find the top 10 matching items for each retailer in the user's area. Note that because the pagesize has a default value of 10, results may contain only a single retailer if that retailer carries 10 or more items matching the keywords. To guarantee at least 2 retailers (assuming more than one retailer in the area carries products matching the keywords), this example sets the pagesize to 20, as well.

http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<userid>&userlocation=37.47,-122.26&keywords=board+games&maxperretailer=10&pagesize=20

Because the pagesize has been set to 20, at least 2 retailers are guaranteed to appear in this call (assuming more than one retailer in the area carries products matching the keywords). There can be more than 2 if retailers carry fewer than 10 products matching the keywords.

Search for all retail locations that typically carry a certain type of product

The Product Search method restricts results to only the closest retail location to the caller for any given retailer. If a specific use case requires showing all retail locations (e.g., mapping store locations), use the Location Search method and use the input parameter rcategory to identify those retailers typically carrying the categories of products of interest.

http://api.retailigence.com/v2.1/locations?apikey=<apikey>&requestorid=<userid>&userlocation=37.47,-122.26&retailercategory=furniture

Search within a specific retailer

There are a number of ways to do this… allow a user to select a location from a map, allow a user to look for more products from a store in a list they already have from a previous action, etc. The retailerid parameter is used in all cases, though, to restrict the search to a single retailer:

http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<userid>&userlocation=37.47,-122.26&keywords=board+games&retailerid=<UUID>

Find all locations nearby, then allow product search at user-selected location

To populate a map and then allow a user to search for a product within a selected location, 2 calls are required: one to obtain all the locations for mapping, and one to obtain the relevant product information from the selected store. For this, use the locationid parameter in the 2nd call to restrict the product search to that specific store location.

http://api.retailigence.com/v2.1/locations?apikey=<apikey>&requestorid=<userid>&userlocation=37.47,-122.26&keywords=board+games

This produces all the retail locations (including, potentially, multiple store locations per retailer) carrying products matching the given keywords. Once the user selects a specific store location from the map, a second call is placed for product details that includes the retailers unique id.

http://api.retailigence.com/v2.1/products?apikey=<apikey>&requestorid=<userid>&userlocation=37.47,-122.26&keywords=board+games&locationid=<UUID>

Future API Versions

The Retailigence API is evolving and being enhanced on a regular basis. If you have any enhancement or specific requests, we always welcome your feedback. Please feel free to contact us at: api@retailigence.com.