1WorldSync Content1 Web Services

Product Search and Fetch API Guide

Version 3.1.17

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1 Overview

1WorldSync's Content1 ContentNOW API allows you to access 1WorldSync's rich and trusted repository of Brand Owner provided product information.

This document describes how to use the APIs to access product data from 1WorldSync Content1. It details the various parameters required to access and use the service, such as web service URLs, and request and response formats.

The intended audience of this document is anyone who will use Web services to access ContentNOW product data from Content1. (Note that a separate API document exists for those subscribers that will provide digital asset content.)

The current application programming interface (API) is a version 1 (/V1/) release.

These Web services will help you to:

- Access trusted product data sourced directly from Brand Owners and Manufacturers to power your applications.
- Ensure that you do not miss out on exciting information about new products from leading brands.
- Access latest updates on products, real-time.
- Perform efficient and extremely fast search operations on products.

2 If Your Company has never used ANY 1WorldSync API

Please note the following before attempting to sign up for an account.

If your Company has an existing API account using any API with 1WorldSync, including Product API, DAM API, or Content1 API you should NOT attempt to create an account in the developer portal. Instead open a support ticket.

If you are not sure if your Company has an existing API account using any API with 1WorldSync you should also NOT attempt to create an account in the developer portal. Instead open a support ticket.

If your Company does have an existing API account with 1WorldSync any administrator from your company in the developer portal can invite a new developer onto the account via email from inside the developer portal.

If your Company has access to a different API and you want to add access to the Content1 API on your Company account, you should open a support ticket.

If your Company has not used any API with 1WorldSync before, then you should register through the developer portal as instructed below. After registering, a support agent will contact you at the email address used when you created the account.

Before using 1WorldSync's web services, you must first register at https://developer.1worldsync.com to receive the credentials required for access.

Upon registration, you'll receive the following credentials:
- Your app_id: an 8-character, alphanumeric identifier
- Your X-3SCALE-AUTH-SECRET: a 32-character identifier (Client Secret)

The app_id must be included in all 1WorldSync Content1 web service requests to identify the sender of the request. The X-3SCALE-AUTH-SECRET code allows you to create the digital signature that provides proof that you truly are the sender of the request. For all requests you must calculate this signature (hash_code) using your X-3SCALE-AUTH-SECRET code to authenticate your signature. You may refer to Appendix C: Authorization Mechanism to Access 1WorldSync API for more details on the information you must supply for the authentication process.

If you would like to test our API's in a non-production environment, you can use our Pre-Production environment: https://marketplace.preprod.api.1worldsync.com/V2/products. You will need a separate client id and secret key from your production account; contact us at customersupport@1worldsync.com if you need this additional access established.

Otherwise access to the Production web services will be through: https://marketplace.api.1worldsync.com/V2/products.

There is also an online tool and sdk available to help you begin programming against the

Content1 API while allowing you to make direct API calls using your app_id and secret key. Visit https://marketplace.api.1worldsync.com/api/ for more information.

3 Using 1WorldSync Web Services

You can use the Web Services to search for and fetch current and accurate product data from the 1WorldSync ContentNOW. The API is a REST interface and accepts a GET request.

You can use the Web Services to perform the following types of searches.

Action	Action Details	Sample URI	Description
GET	Free Text Search	https://marketplace.api.1worldsync.com/V2/products?searchType=freeTextSearch&query=milk&rows=1&geo_loc_access_latd=12&geo_loc_access_long=22&access_mdm=computer&app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=	This search allows you to specify a text that you are looking for in the product information. The 'query' string you specify will return all corresponding matches, based on the attributes listed in Appendix A. For example: searchType=freeTextSearch&query=milk

Action	Action Details	Sample URI	Description
GET	Category Code Search	https://marketplace.api.1worldsync.com/V2/products?searchType=categoryCode&query=Beverages&rows=1&geo_loc_access_latd=12&geo_loc_access_long=22&access_mdm=computer&app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=	This search allows you to search products by either the category code or description. Valid categories are within the Global Product Classification (GPC), which are maintained at http://www.gs1.org/access-gpc-standards. Navigate to the "GPC Publication Schema" to download the list of GPC codes and to access the four levels of the GPC taxonomy: • Segment Code & Description • Family Code & Description • Class Code & Description • Brick Code & Description You can also refer to the searchable attributes in Appendix A - List of (searchable) attributes. All products in the marketplace will have a category code assigned to it at the lowest level of the taxonomy (the GPC Brick code). For example: searchType=categoryCode&query=Beverages To search for all the items whose any of the categories contain Beverages but not Sugar use: searchType=categoryCode&query=Beverages NOT Sugar
GET	Advanced Search	https://marketplace.api.1worldsync.com/V2/products? app_id=9af172d4&searchType=advancedSearch&query=productCategory%3A%E2%80%9DGPC%20Beverages%E2%80%9D&access_mdm=computer&TIMESTAMP=2016-03-15T22%3A26%3A08Z&hash_code=paxXL4mmuIaHYyQMuXVWoLL%2Fkbk68Y1TycQ8vmBcs7o%3D	This search allows you to provide a specific field name in the search string and its text value. For example : searchType=advancedSearch&query=productCategory:"GPC Beverages" Please refer to Appendix A – List of (searchable) attributes for the attributes that you can perform an Advanced Search on. cursorMark searches can also be performed when you want to guarantee each returned result set has unique values for a set of search parameters.

Action	Action Details	Sample URI	Description
GET	Product Fetch	https://marketplace.api.1worldsync.com/V2/products/dDWFme?attrset=all&geo_loc_access_latd=12&geo_loc_access_long=22&access_mdm=computer&app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=	This function allows you to retrieve the full set of information on a single product. A single "itemReferenceId" must be provided as an input parameter.

The following sub-sections describe in more detail the search and fetch options of 1WorldSync Web Services.

3.1 Searching for Information

The search features allow you to:

- Get a pre-defined subset of information on products in the 1WorldSync Marketplace. The Product Search request provides enough information to choose which product you'd like full details on (through the Product Fetch request).
- Get the list of products on the portal through a free text, category code, or advanced search option.

Format:

The format of an API request is as follows:

https://marketplace.api.1worldsync.com/V2/products?searchType=**:yourSearchType**&query=**:yourSearchValue**&geo_loc_access_latd=**:latitude**&geo_loc_access_long=**:longitude**&access_mdm=**:access_medium**&app_id=**:yourId**&TIMESTAMP=**:currentUTCTime**&cursorMark=**:yourCursorMar**k&hash_code:yourCode

Request Parameters:

The following table provides details of the search request parameters.

Name	Valid Values	Mandatory	Description
searchType	• freeTextSearch • categoryCode • advancedSearch	✓	The type of search to be performed. If you chose • freeTextSearch - pass any search string in the query parameter • categoryCode - pass the Category value in the query parameter • advancedSearch - pass the search attribute name and value in the query parameter

Name	Valid Values	Mandatory	Description
query	• freeTextSearch - pass any search string in the query parameter • categoryCode - pass the Category value in the query parameter • advancedSearch - pass the search attribute name and value in the query parameter	✔️	This parameter specifies the criteria for which you want to perform the search. When using the freeText search you would specify a word, phrase, or ID to search on. If a categoryCode search is selected the category code should be provided. When advancedSearch is selected you can create a dynamic query using logical operators (and/or/not) along with a corresponding attribute to create a complex query. You can view Appendix A - List of (searchable) attributes to obtain a list of valid searchable attributes. View Attributes Examples: • freeTextSearch - query="Tuscan milk" • categoryCode - query="Fruits - Unprepared/Unprocessed(Frozen)" • advancedSearch - query=productName:"Healthy and tastySoybeanmilk" Note: For partial text search on a single word, append ' ∗ ' in the query parameter. You cannot use a partial text search for a phrase. Examples: To search for Beverages in a freeTextSearch • query="Bever ∗ " • query=" ∗ verag ∗ " • query=" ∗ erages"
rows	1, 2,3 …500	❌	Number of results to return. If value is not set the default is set to the maximum value which is 500 rows.

Name	Valid Values	Mandatory	Description
start	1, 2, 3 …500	✘	Start index of returned result set. If the value is not provided, then by default, it is set to the minimum value of 1. This should be used in conjunction with the rows parameter to return specific result sets that require pagination. For example: If you want to view results between 50 to 100, the start index would be 50 and rows would be 50. Or, if you wish to view the first 100 products of your search result, the start index would be 1 and rows would be 100.
filter	Filtering search results based on the defined filter attributes of the product given in <u>Appendix A: List of (Searchable) Attributes</u>	✘	This parameter helps to filter the search result based on the specified attributes. For example: Below request returns the items for all items with drink in it and have a Brick Description of 'wine' searchType=freeTextSearch&query=Drink &filter= productCategory:"BRICK wine"
sortOrder	asc desc	✘	This parameter is used for defining the sort order. If asc is sent then search results will be sorted in ascending order and if sortOrder is desc then result will be sorted in descending order.. For example: searchType=freeTextSearch&sortOrder=a sc
sortColumn	<u>Appendix B: List of (Sortable) Attributes</u>	✘	This parameter specifies which attribute to sort on using the sortOrder specified. Not all attributes can be sorted on. Here is a list of sortable attributes. View Attributes For example: searchType=freeTextSearch&sortColumn =creationDate
matchScore	~0.1 to ~1.0	✘	Set a value to this parameter to perform a 'closest-match' search. A lower value would ensure loose searching and return closer results whereas a higher value would ensure tight searching and return less or no results. Default value is 1.0. For example: searchType=freeTextSearch&matchScore =0.5

Name	Valid Values	Mandatory	Description
app_id	{app_id}	✓	A unique ID generated by 1WorldSync to access the Web Services. This was sent to you upon registering and being approved at developer.1worldsync.com
geo_loc_access_long	Longitude of the access location.	✗	Provide the latitude of the geographical location from where the request is originating. Note that this is not the location of your hardware but is the location of where the initiating requestor is located. For example: searchType=freeTextSearch& geo_loc_access_long =48.12345
geo_loc_access_latd	Latitude of the access location.	✗	Provide the longitude of the geographical location from where the request is originating. Note that this is not the location of your hardware, but is the location of where the initiating requestor is located. For example: searchType=freeTextSearch& geo_loc_access_latd=1.1266
access_mdm	Valid values: • SMART_PHONE • TABLET • COMPUTER • OTHER	✓	Specify the device used for accessing the API For example: searchType=freeTextSearch&access_mdm=computer
cursorMark	Alpha numeric characters. Case sensitive.	✗	The cursor mark must be provided to continue a search from the point where the previous call left off. The nextCursorMark value that is returned in the JSON should be used to feed into this parameter. If a cursorMark search is to be used the first call to the API should pass a value of * example: cursorMark:*
TIMESTAMP	Timestamp for calling the search service	✓	Security Checks for web service will retrieve the value and will compare with the (current time – 5 minutes). If the supplied time stamp is within the criteria, then it will allow the user to access the WS. TIMESTAMP should be provided as Coordinated Universal Time format, such as "2015-03-03T18:12:22Z" or and offset to UTC such as "2015-03-03T23:12:22+05:00" or "2015-03-03T13:12:22-05:00"

Operators:

The following operators can be used in one or more combinations to filter queries.
Logical Operator: AND, OR , NOT

As an example:
Input URL:
https://marketplace.api.1worldsync.com/V2/products?access_mdm=COMPUTER&geo_loc_access_long=51.51&geo_loc_access_latd=9.91&app_id=bc3f4ed1&**query=dietTypeCode:Vegan AND dietTypeCode:Halal&searchType=advancedSearch**&TIMESTAMP=2015-09-08T07:05:27Z

The Output URL is constructed as:
https://marketplace.api.1worldsync.com/V2/products?app_id=bc3f4ed1&**searchType=advancedSearch**&**query=dietTypeCode%3AVegan%20AND%20dietTypeCode%3AHalal**&access_mdm=computer&TIMESTAMP=2015-09-08T07%3A05%3A27Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&hash_code=AhmQpBMR%2BYpveWmxAFrYQtKpHxkSiN9aeRHTmjpHYLU%3D

Above example will fetch only vegan and halal items.

Search by UPC:

In order to search by a UPC (EAN.UCC code), the advanced search can be used. The itemPrimaryId attribute should be referenced as shown below in bold (where the UPC =00007252146838):

Input URL:
https://marketplace.api.1worldsync.com/V2/products?access_mdm=COMPUTER&geo_loc_access_long=20.00&geo_loc_access_latd=30.00&app_id=bc3f4ed1&**query= itemId :00007252146838&searchType=advancedSearch**&TIMESTAMP= 2015-09-08T07:05:27Z

The Output URL is constructed as:
https://marketplace.api.1worldsync.com/V2/products?app_id=bc3f4ed1&searchType=advancedSearch&query=itemPrimaryId%20%3A00007252146838&access_mdm=computer&TIMESTAMP=2015-09-08T07%3A05%3A27Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&hash_code=LdEOzAL5YxmsHu1wOlZ8scBoFolLWart33%2BfrQXCDrQ%3D

Sample Request:

Search Type	Sample URL
Free Text Search	Input URL: https://marketplace.api.1worldsync.com/V2/products?access_mdm=COMPUTER&geo_loc_access_long=51.51&geo_loc_access_latd=9.91&app_id=bc3f4ed1&**query=Milk&searchType=freeTextSearch**&rows=1&TIMESTAMP=2015-09-08T07:05:27Z The Output URL is constructed as: https://marketplace.api.1worldsync.com/V2/products?app_id=bc3f4ed1&searchType=freeTextSearch&query=Milk&access_mdm=computer&TIMESTAMP=2015-09-08T07%3A05%3A27Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&hash_code=1Dj1YWB2lSyM86NK3vYRtaNc9LZzmN6I4txnUDCNiv0%3D
Category Code Search	Input URL: https://marketplace.api.1worldsync.com/V2/products?access_mdm=COMPUTER&geo_loc_access_long=51.51&geo_loc_access_latd=9.91&app_id=bc3f4ed1&**query=Beverages&searchType=categoryCode**&TIMESTAMP=2015-09-08T07:05:27Z The Output URL is constructed as: https://marketplace.api.1worldsync.com/V2/products?app_id=bc3f4ed1&searchType=categoryCode&query=Beverages&access_mdm=computer&TIMESTAMP=2015-09-08T07%3A05%3A27Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&hash_code=R3N7ZFo1vw7Tz8M64MeutszXxUscPtkLhFklUIDbxmc%3D
Advanced Search	Input URL: https://marketplace.api.1worldsync.com/V2/products?access_mdm=COMPUTER&geo_loc_access_long=51.51&geo_loc_access_latd=9.91&app_id=bc3f4ed1&**query=productName:BareMin*&searchType=advancedSearch**&TIMESTAMP= 2015-09-08T07:05:27Z The Output URL is constructed as: https://marketplace.api.1worldsync.com/V2/products?app_id=bc3f4ed1&searchType=advancedSearch&query=productName%3ABareMin*&access_mdm=computer&TIMESTAMP=2015-09-08T07%3A05%3A27Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&hash_code=9gHzE3aFU9KIIJ0r9sDN3%2FGJ7bXCZYPxnYMWowFfz08%3D

Sample Response:
Responses can be viewed using our online interactive Content1 API toolkit. You will need your app_id and Client Secret key.

https://marketplace.api.1worldsync.com/api/

If you don't have your app_id and / or Client Secret key please access or create your account at **http://developer.1worldsync.com**

Response Code:

Following are the response messages.

Http Status Code	Response Code	Response Messages
200 OK	S20019	Search is successful.
200 OK	S20020	There are more results that can be displayed on the screen. Your results are limited to {$1}, but you can refine your search further if you can't find what you are looking for.
200 OK	S20021	Search returned no result.
500 Internal Server Error	E50016	Currently the service is not available, please try after some time.
400 Bad Request	E40038 E40032	Invalid request parameter/s passed. A valid Hashcode must be supplied.
400 Bad Request	E40035	Invalid request parameter/s passed. A valid app_id must be supplied.
400 Bad Request	E40033 E40034 E40037	Invalid request parameter/s passed. A valid Timestamp must be supplied.
400 Bad Request	E40029	Invalid search parameter passed.
400 Bad Request	E40028	Mandatory Attribute {$1} must be populated.
400 Bad Request	E40031	Oops! Did you enter the right value? This field must be a number
400 Bad Request	E40030	Oops! This field can accept only alphanumeric values (no special characters).
400 Bad Request	E40041	Sorry, the value provided for access_mdm is not supported.

Note: {$1} is a variable which will contain the parameter name or any value.

Output Details:

Please refer to the Product Search JSON Guide which can be found at https://marketplace.api.1worldsync.com/api/ for a complete JSON structure from the search API.

Note: Please refer to the 1WorldSync Attributes Dictionary at https://developer.1worldsync.com for more detailed description of the above attributes (e.g. data type, field length, valid values, mandatory vs. optional, multi-value, language specific).

3.1.1 Using cursorMark for Unique Result Sets

cusrorMark is an internal pointer used by our API which will allow the API to always return a unique set of items, from a given point in the collection, based on the provided search criteria.

To use cursorMark, the first call to the search API should pass a value of * in the cursorMark parameter which tells the API that cursorMark processing should be used and to return the nextCursorMark attribute in the JSON.

Each successive search should provide the value returned in the nextCursorMark attribute, in order to retrieve the next set of items for the requested search. Each time the application calls the API after the initial call it must include the original search parameters along with the nextCursorMark returned from the previous API call to get the proper data set returned. The total number of matching records can be found in the totalNumOfResults which is returned in the JSON.

Example: An advanced search is performed and there are 10,000 items which match the criteria. The application has chosen to receive 500 items at once (the maximum allowed).

The first call to the API should pass a value of * in the cursorMark parameter to tell the API that cursorMark should be used in the return JSON.

The first set of search results will be returned including a parameter called nextCursorMark. When the API is called again that nextCursorMark must be included in the new API call in the cursorMark parameter to receive the next 500 items. The second API call will return a new cursorMark which will then be used for the 3rd API call. The 3rd API call will return a unique cursorMark to be used on the 4th call and this will continue for all 20 calls to the API.

When cursorMark is used, the resulting JSON will contain the remaining items matching the search parameters up to the requested amount. So, if for example, you have requested 100 items per file and there were 479 matches. Each of the first 4 API calls will contain 100 items and the fifth will only contain 79 items.

If the returned cursorMark matches the cursorMark that was used to call the API, it means that API has reached the end of the collection and there are no additional items to return. This could occur if the calling application is not keeping track of how many times it has to call the API to return the entire data set.

3.1.2 Search by Last Changed Date

The lastChangedDateTime will allow items to be searched based on the last time it was modified by some process in the system (machine to machine, GUI or FUSE upload). The date searched is when the item was last refreshed in the API database, it will most likely not be the same as the lastChangedDateTime on the item itself which can be seen when the item is fetched. This date is for search purposes only and is not reflected in the item data.

The value should be provided as Coordinated Universal Time format, such as "2015-03-03T18:12:22Z"

To use this attribute the following formats are supported to retrieve data for certain periods of time.

Equal To: lastChangeDateTime: 2016-11-01T00:00:00.000Z

Less than or Equal to: lastChangeDateTime:[* TO 2017-02-21T00:00:00.000Z]

Greater than or Equal to: lastChangeDateTime:[2016-11-28T11:44:43.246Z TO *]

Date Range: lastChangeDateTime:[2016-11-01T00:00:00.000Z TO 2016-11-30T00:00:00.000Z]

When using the lastChangedDateTime as a searchable attribute advancedSearch should be chosen as the searchType..

The new cursorMark attribute should be used with this type of search to ensure that unique items are returned for each call to the API.

3.2 Fetching Product Information

Overview:
This Web service is used for fetching full product details on a single product through an API call.

The unique product identifier parameter (the 1WorldSync Item ID) must be specified to retrieve the data.

The Fetch features allow you to:
- Retrieve information of a specific product
- Choose between retrieving all information, or selected sets of information (e.g., ingredients, dimensions), for the product

Request Format:
The format of an API request is as follows:

https://marketplace.api.1worldsync.com/V2/products**/:itemReferenceId?a**ttrset=all&geo_loc_access_latd=**:latitude**&geo_loc_access_long=**:longitude**&access_mdm=**:access_medium**&app_id=**:yourId**&TIMESTAMP**=:currentUTCTime**&hash_code=:yourCode

Path Variable:

Name	Valid Values	Description
{itemReferenceId}	Sample value: dDWFme	This is the "itemReferenceId" of the product, which is a unique identifier in 1WorldSync Platform. Based on the itemReferenceId provided in the path variable, the full set of product attributes will be returned for a product fetch.

Request Parameter:

The following table provides details of the fetch request parameters.

Name	Valid Values	Mandatory	Description
attrset	see list	✘	A comma separated list of attribute contexts to be returned For example: attrset=allergens,ingredients,nutritionals
app_id	{app_id}	✔	A unique ID generated by 1WorldSync to access the Web Services. This was sent to you upon registering and being approved at developer.1worldsync.com.
access_mdm	Valid values: • SMART_PHONE • TABLET • COMPUTER • OTHER	✔	Specify the device used for accessing the API For example: searchType=freeTextSearch&access_mdm=computer
TIMESTAMP		✔	Security Checks for web service will retrieve the value and will compare with the (current time – 5 minutes). If the supplied time stamp is within the criteria, then it will allow the user to access the WS. TIMESTAMP should be provided as Coordinated Universal Time format, such as "2015-03-03T18:12:22Z" or and offset to UTC such as "2015-03-03T23:12:22+05:00" or "2015-03-03T13:12:22-05:00"
geo_loc_access_long		✘	Longitude component of location
geo_loc_access_latd		✘	Latitude component of location.

*Refer to the section "Attribute Context(s) Information" below for the available Context codes.

Context:
The Context based "FETCH" allows the retrieval of sub sets of attribute data. This allows you to filter the information returned to you to only those of interest.

This parameter is an optional parameter, and either a single, or multiple contexts can be passed. If no context is passed then the full set of attributes is returned.

The response json will always contain a "core set of attributes" as well as the "entire set of item definitions" information along with context based attribute information.

Attribute Context(s) Information:
The following are the identified "Attribute Contexts" which can be used on a single product to retrieve customized attribute data along with the core attributes data.

Attribute Context Code	Attribute Context Name
general	General (Core)
identification	Identification (Core)
handlingAndDelivery	Handling and Delivery
packaging	Packaging
ingredients	Ingredients
allergens	Allergens
nutritionals	Nutritionals
dimensions	Dimensions
image	Images and files
foodAndBeverage	Food and Beverage
marketingAndContactInfo	Marketing and Contact Info
euFoodInformationRegulation	EU Food Information Regulation

Note: The list of available attributes within a specified Attribute Context can be referenced under the Attribute Dictionary ("1WorldSync_PDM_Attribute_Dictionary.xlsx") available at http://developer.1worldsync.com.

Request Format:

Action Type	Sample URL
Fetch	Input URL: https://marketplace.api.1worldsync.com/V2/products/dDWFme?**attrset=all**&geo_loc_access_latd=9.91&app_id=bc3f4ed1&TIMESTAMP=2015-10-15T19:28:07Z&geo_loc_access_long=51.51&access_mdm=computer The Output URL is constructed as: https://marketplace.api.1worldsync.com/V2/products/dDWFme?app_id=bc3f4ed1&access_mdm=computer&TIMESTAMP=2015-10-15T19%3A28%3A07Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&attrset=all&hash_code=U9%2FRIbmFM3gob%2FhADbqygQXYh8EaJif23qes9RqVlTo%3D

Action Type	Sample URL
Fetch – Single Context (**dimensions**)	Input URL: https://marketplace.api.1worldsync.com/V2/products/kuNG3J?geo_loc_access_latd=9.91&app_id=bc3f4ed1&geo_loc_access_long=51.51&**attrset=dimensions**&access_mdm=computer&TIMESTAMP=2015-10-15T19:28:07Z The Output URL is constructed as: https://marketplace.api.1worldsync.com/V2/products/kuNG3J?app_id=bc3f4ed1&access_mdm=computer&TIMESTAMP=2015-10-15T19%3A28%3A07Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&attrset=dimensions&hash_code=UxtjBPB7wUYXkVHZLXnFPUUCHimXZPAPXxI85ADtnBg%3D
Fetch – Multiple Contexts (**allergens, ingredients, nutritionals**)	Input URL: https://marketplace.api.1worldsync.com/V2/products/kuNG3J?geo_loc_access_latd=9.91&app_id=bc3f4ed1&geo_loc_access_long=51.51&**attrset=allergens,ingredients,nutritionals**&access_mdm=computer&TIMESTAMP=2015-10-15T19:28:07Z The Output URL is constructed as: https://marketplace.api.1worldsync.com/V2/products/kuNG3J?app_id=bc3f4ed1&access_mdm=computer&TIMESTAMP=2015-10-15T19%3A28%3A07Z&geo_loc_access_latd=9.91&geo_loc_access_long=51.51&attrset=allergens%2Cingredients%2Cnutritionals&hash_code=88yziwSJo2j0jSHtzGcANQy4cKgKwrGAFeiUtkUGnOc%3D

Sample Response:
Responses can be viewed using our online interactive Content1 API toolkit. You will need your app_id and Client Secret key.

https://marketplace.api.1worldsync.com/api/

If you don't have your app_id and / or Client Secret key please access or create your account at http://developer.1worldsync.com

Response Code:
Following are possible response messages:

Http Status Code	Response Code	Response Messages
200 OK	S20019	Search is successful.
200 OK	S20021	Search returned no result.
500 Internal Server Error	E50016	Currently the service is not available, please try after some time. (please try again later)
400 Bad Request	E40038	Invalid request parameter/s passed
400 Bad Request	E40032	Invalid request parameter/s passed
400 Bad Request	E40035	Invalid request parameter/s passed
400 Bad Request	E40033	Invalid request parameter/s passed
400 Bad Request	E40034	Invalid request parameter/s passed
400 Bad Request	E40037	Invalid request parameter/s passed

Http Status Code	Response Code	Response Messages
400 Bad Request	E40029	Invalid search parameter passed.
400 Bad Request	E40028	Mandatory Attribute {$1} must be populated.
400 Bad Request	E40031	Oops! Did you enter the right value? This field must be a number
400 Bad Request	E40030	Oops! This field can accept only alphanumeric values(no special characters) :
400 Bad Request	E40041	Sorry, the value provided for access_mdm is not supported.
400 Bad Request	E40038	Invalid request parameter(s) passed. The context(s) "…" provided for the request parameter attrset is not supported.

Output Details:

Please refer to the Product Fetch JSON Guide which can be found at https://marketplace.api.1worldsync.com/api/ for a complete JSON structure from the fetch API.

Note: Please refer to the 1WorldSync Attributes Dictionary at https://developer.1worldsync.com. For more details refer to Column "**B**" [Attribute JSON structure] and Column "**E**" [Description] on the attributes being returned as part of product fetch.

4 Appendix A: List of (Searchable) Attributes

Following are the attributes that can be used in the 'query' parameter in order to search items by narrowing the results based on specific attribute values.

Attribute Name	Attribute Description
additionalTradeItemDescription (Product Description)	Marketing message associated with the product.
alternateClassification	Alternate Classification. To search based on alternate classification, provide value of • additionalTradeItemClassificationCodeValue or • additionalTradeItemClassificationCodeDescription or • Both For example: searchType=advancedSearch&query= alternateClassification:12345 searchType=advancedSearch&query= alternateClassification:My Code Description searchType=advancedSearch&query= alternateClassification: 12345 My Code Description

alternateTradeItemId	Searches the alternate Trade Item Id that a supplier may have assigned to an item. This would be an internal Id used to identify an item.
allergens	Name of the allergens. To search based on allergens, provide value of • allergensTypeCode or • levelOfContainment(only free_from) or • Both For example: searchType=advancedSearch&query=allergens:AC searchType=advancedSearch&query=allergens:FREE_FROM searchType=advancedSearch&query=allergens: FREE_FROM AC
brandName	The Brand Name for the product recognized by the consumer.
countryOfOrigin	The country code (codes) in which the goods have been produced or manufactured, according to criteria established for the purposes of application of the value may or may not be presented on the trade.
depth	Depth of the item you can also include the qualifier. Example depth:"10 MMT" would search for items with a depth of 10 millimeters
diameter	Diameter of the item you can also include the qualifier. Example depth:"10 MMT" would search for items with a diameter of 10 millimeters
dietTypeCode	Indicates the diet for which the product is suitable. Valid values include "Organic", "Halal, "Vegan", "GlutenFree", and "Kosher".
height	Height of the item you can also include the qualifier. For example: height:"10 MMT" would search for items with a height of 10 millimeters
ingredientStatement	Indication of ingredients listed on the product.
informationProvider	informationProvider refers to one or more identifiers for an organization. This can include GLN, DUNS, or a organization identifier. There are 4 parts to this field, the informationProviderId, informationProviderName, informationProviderType and the isPrimary flag. informationProviderId a unique identifier for an organization informationProviderName is the organization name informationProviderType is the type of the product identification, such as a GLN, DUNS, DUNS_PLUS_FOUR etc. The "isPrimary" flag indicates whether the informationProviderId has been indicated as the primary organization identifier for the product (by the information provider). Use TRUE or FALSE for the value A search is performed using one part or all 4. The order however is important. It must be informationProvider: "[informationProviderId] [informationProviderType] [informationProviderName] [isPrimary]" For example: informationProvider:"0614141407002 GLN Sample Company TRUE" will return all items for organizations matching the name "Sample Company" and has a 0614141407002 GLN as the primary identifier.

	informationProvider:"0614141407002 GLN" will return all items which have 0614141407002 GLN. informationProvider:"0614141407002" will return all items which have an informationProviderId that contains 0614141407002. informationProvider:"Sample Company" will return all items which have a name like "Sample Company"
isTradeItemAConsumerUnit	True/ False - Indicates whether an item is a consumable unit or not. For example: isTradeItemAConsumerUnit:false
itemIdentifier	itemIdentifier refers to one or more identifiers for a product. This can include GTIN, UPC, or a supplier assigned identifier. Note that this value by itself may not be unique. A product in 1WorldSync is unique by either: • Item Reference ID (the 1WorldSync assigned identifier) • itemPrimaryId /Type, Information Provider ID / Type, and Target Market There are 3 parts to this field, the itemId, the itemIdType and the isPrimary flag. itemId a unique identifier for a trade item itemIdType is the type of the product identification, such as a GTIN, UPC Consumer Package Code (1-5-5) or a Manufacturer Part Number. The "isPrimary" flag indicates whether the itemId has been indicated as the primary identification for the product (by the information provider). Use TRUE or FALSE for the value A search is performed using one part or all 3. The order however is important. It must be itemIdentifier: "[itemId] [itemIdType] [isPrimary]" For example: itemIdentifier:"00700000008845 GTIN TRUE" will return all items which have 00700000008845 GTIN and is primary. itemIdentifier:"00700000008845 GTIN" will return all items which have 00700000008845 GTIN. itemIdentifier:"00700000008845" will return all items which have an itemId which contains 00700000008845.
itemReferenceId	The 1WorldSync assigned identifier for this product. This is the main attribute supplied in the fetch api call.
lastChangeDateTime	Date/Time for specifying the date to be used for searching on the last changed date. The date searched is when the item was last refreshed in the API database, it will most likely not be the same as the lastChangedDateTime on the item itself which can be seen when the item is fetched. The value should be provided as Coordinated Universal Time format, such as "2015-03-03T18:12:22Z" **Equal To:** lastChangeDateTime: 2016-11-01T00:00:00.000Z **Less than or Equal to:** lastChangeDateTime:[* TO 2017-02-21T00:00:00.000Z] **Greater than or Equal to:** lastChangeDateTime:[2016-11-28T11:44:43.246Z TO *]

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	Date Range: lastChangeDateTime:[2016-11-01T00:00:00.000Z TO 2016-11-30T00:00:00.000Z]
productCategory	To search for product category this is a compound field which allows you to search for productCateogrySchema, productCateogryComponent, productCategoryCode and productCategoryCodeDescription A search is performed using one part or all 4. The order however is important. It must be prouctCategory:"[productCategorySchema] [productCategoryComponent] [productCategoryCode] [productCategoryCodeDescription]" For example: productCategory:"GPC Segment 50000000 Food" this will search for all GPC Segment codes of 50000000 containing the word "Food" productCategory:"GPC Family 50100000 Fruits" this will search for all GPC Family codes of 50100000 containing the word "Fruits" productCategory:"GPC Brick 10000204 Fruit" this will search for all GPC Brick codes of 10000204 containing the word "Fruit" productCategory:"GPC Class 50102000 Fruit" this will search for all GPC Class codes of 50102000 containing the word "Fruit" Please click on the link for GPC codes values: http://www.gs1.org/access-gpc-standards to view the list of GPC codes from the "GPC Publication Schema" link.
productName	An understandable and useable description of a product using brand and other descriptors.
tradeItemUnitDescriptorCode	This field represents the type of the product that this item is. Allowed values are • SETPACK • CASE • DISPLAY_SHIPPER • BASE_UNIT_OR_EACH • MULTIPACK • MIXED_MODULE • PREPACK_ASSORTMENT • PACK_OR_INNER_PACK • PALLET • PREPACK TRANSPORT_LOAD
targetMarket	The Target Market indicates the country where the trade item is available for sale. To search based on targetMarget, provide value of targetMarget code in the query parameter. For example: searchType=advancedSearch&query= targetMarget:US

thirdPartyContent	Third Party Content Indicator
width	Width of the item you can also include the qualifier. For example: width:"10 MMT". would search for items with a width of 10 millimeters

5 Appendix B: List of (Sortable) Attributes

Following are the attributes that can be used in the 'sort column' parameter in order to sort the items returned in the search.

Attribute Name	Description
isTradeItemAConsumerUnit	True/ False - Indicates whether an item is a consumable unit or not.
lastChangeDateTime	System generated time when the last change was made
tradeItemUnitDescriptorCode	This field represents the type of the product that this item is.
publicationDateTime	System generated time when publication occurred
targetMarket	The Target Market indicates the country where the trade item is available for sale.

6 Appendix C: Authorization Mechanism to Access Web Services

The HMAC generator is now part of the 1WorldSync Content1 API SDK. You can download the SDK from following the link at https://marketplace.api.1worldsync.com/api/.

If you are using a language other than Java or want to write your own HMAC code, there is a downloadable API HMAC guide at that same location.

7 Appendix D: Relationship Dependent Data (RDD)

The Content1 JSON model supports RDD (Relationship Dependent Data) returned from the Product Fetch API call. RDD attributes are attributes which may have different values for each Data Recipient that subscribes to the Suppliers data. The functionality is best described using an example:

Let's assume a Supplier is publishing data to 2 different Data Recipients, Retailer A and Retailer B. To ensure they have enough inventory to satisfy all of their clients they have decided to stagger the introduction of their new product. In their data they have changed the start availability date for each Data Recipient to be one month apart. The supplier will publish the startAvailabilityDateTime to Retailer A for Sept 1, 2016 and for Retailer B for Oct 1, 2016.

The JSON model has been expanded so that the parent group which contains the RDD attributes will be a repeating group with a "key" group called recipient. The recipient group has been added so that it can easily be determined which data belongs to which Recipient. The attributes discussed in this example have been highlighted below.

NOTE: If your **appid** is only associated with a single Data Recipient GLN (this is the most common setup) only one "row" will be returned for that Data Recipient GLN. If, however, your **appid** is associated with more than one Data Recipient GLN then multiple "rows" will be returned in these RDD groups.

It is not necessary to know which individual attributes are RDD. All attributes within the group should be treated as RDD and the only the values contained within the group associated with the recipient GLN for which you are displaying the data should be used.

For examples of how RDD data is sent, please refer to the Content1 Product Fetch Model Schema Guide.

8 Contact Us

In case you face any problem, please reach our Customer Support at TechnicalSupport@1worldsync.com, or call any one of the following phone numbers.

Phone	From within USA	From outside USA
Global Customer Support	+1 866.280.4013	+1 937.610.4223

9 Revision History

Date	Ver #	Description of Change	Author
03/15/2016	3.0	Initial Version	K. Tratt
03/30/2016	3.0r1	Added itemReferenceId to searchable fields Changed productType to tradeItemUnitDescriptorCode in sortable fields	K. Tratt
04/27/2016	3.1	Added Appendix D for RDD Attributes	K. Tratt
06/24/2016	3.1.2	Clarified Search Attribute for Information Provider	K. Tratt
10/26/2016	3.1.4	Fixed bad links	K. Tratt
04/20/2017	3.1.4.7	Added new search by Last changed date and new cursorMark functionality	K. Tratt
09/20/2017	3.1.6	Added 2 new Search Attributes • Alternate Trade Item Id • Alternate Classification	K. Tratt
05/15/2018	3.1.6.7	Update description for searching by lastChagnedDate	K. Tratt
3/22/2021	3.1.15	Update support email and outside USA phone number	P. Odle
11/12/2021	3.1.17	Update instructions for signing up on https://developer.1worldsync.com	P. Odle