ChannelSight

Retailer Onboarding – Online Data

Version 2.6

ChannelSight®
Know more. Sell more.

1 Document Summary

> **Version Info**
>
> The following documentation outlines Version 2.6 of the Retailer Data Format which is available for use from platform release version 1.18 which will be available from September 25th 2019

The following document outlines how ChannelSight captures and stores retailer product data, for the purpose of Buy Now integrations.

The intention is to provide You, the Retailer, with insights into how our platform works and how we store retailer product data including price and stock information.

1.1   Document Versions

Version	Author	Date	Notes
0.1 Draft	Eoin Campbell	2018-02-26	Initial draft
0.2 Draft	Eoin Campbell	2018-03-05	Added localized product data info
1.0	Eoin Campbell	2018-03-09	Final draft
1.1	Eoin Campbell	2018-03-12	Improved the XML examples
2.0	Eoin Campbell	2018-04-10	New XML formats for vNext data platform to support online/offline where-to-buy & click and collect scenarios
2.1	Eoin Campbell, Ionut Lungu	2018-08-22	Additional data points for store type locations with contact and google place details
2.2	Eoin Campbell, Ionut Lungu	2018-10-17	Include JSON and CSV format
2.2 Amended	Eoin Campbell	2018-12-07	Updated documentation to make clarifications based on customer feedback and to separate the online / offline use cases
2.3	Marek Bienkowski	2018-12-21	Adding stock level field to existing formats
2.4	Ionut Lungu	2019-01-06	Add A2C Code
2.4	Eoin Campbell	2019-01-18	Clarifications in relation to mandatory product codes
2.5	Dan Secareanu	2019-03-14	Update retailer data xml/json/csv format for multilingual URLs
2.6	Ionut Lungu	2019-09-10	Add ad-hoc data attributes

1.2   Approvals

Action	Reviewer	Date	Role
Reviewed By	Razvan Catrina	2018-12-21	Lead Developer
Reviewed By	Ionut Lungu	2019-01-07	Lead Developer
Reviewed By	Eoin Campbell	2019-09-16	Senior Technical Architect

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2 Overview

This document outlines the product data that a retailer can provide in order to accommodate an online Buy Now Scenario as outlined below.

The retailer has an online Ecommerce site, provides delivery to customers, and has a single stock availability & price point for each product

If you are an online retailer and wish to facilitate other buying scenarios e.g.

- alternative price/stock per location,
- support for both online & physical store information
- support for click & collect

Please refer to other document in this pack **"Retailer Product Data – Location Specific Data"**.

3 Supply of Data

Data feeds can be delivered to ChannelSight platform can be accomplished in a number of ways. Our platform supports acquisition of files from
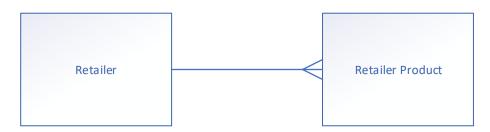
- File Transfer
  - o FTP (username & password)
  - o FTPS (username & password)
  - o SFTP (username & password)
  - o SFTP (username & SSH Key)
- Hosted HTTP/HTTPS Endpoint
  - o Anonymous
  - o URL Param API Key

For File Transfers, ChannelSight can provide the retailer/data provider with an FTP/FTPS/SFTP account, or the retailer/data provider can use their own file transfer platform, and provide credentials to ChannelSight

4 Data Model

The ChannelSight Buy Now Retailer Product Database has a number of key entities which we populate in relation to retailer product data

Entity	Description
Retailers	A Unique record representing a Retailers which ChannelSight has integrated with
RetailerProducts	A Unique record for a manufacturer's product which is carried and sold by that retailer including default stock and price for non-localized scenarios

The retailer should provide a single XML, JSON or CSV document containing product data.

The minimum amount of data required to per retailer product record is:

- Product Identifier(s)
- Manufacturer
- Product Name
- Product URL

The retailer should attempt to provide the current price & stock availability of the product also (where contractually & legally available) as this information is used to inform consumers with an intent to buy to the retailer.

Channelsight utilizes product identifiers for 2 purposes:

1. To match a retailer product obtained in this data set with the manufacturer product code in the manufacturers catalog
2. To match a sales conversion record from the retailer, with the retailer product obtained in this dataset

For retailers which utilize a Global Product Identifier (e.g. EAN, UPC, GTIN) as their own internal reference, then only this single product identifier is required. This should be supplied in the `Product Id` field outlined in the following sections.

For retailers which utilize their own internal product identifier or SKU, then they should supply that value `Product Id` field outlined in the following sections. They should also _**attempt**_ to provide an additional Global Product Identifier (e.g. EAN, UPC, GTIN) for the purposes of associating their product with a manufacturers data. These additional values can be supplied in the `Product Codes` fields outlined in the following sections.

5 Entity Data for XML/JSON

Important

- Xml Elements/Json properties which are marked **"Optional"** can be omitted from the generated data files. If included, they must have a valid value for that data type, (i.e. they cannot be empty/BLANK)
- Xml Elements/Json Properties which are included are case sensitive and must match the same casing outlined in this document and the supplied examples
- The XML/JSON file assumes UTF-8 encoding. Data should be correctly encoded, and in the case of XML, use of CDATA blocks within XML elements if appropriate.

5.1 Product Data XML/JSON File

The Product Data file contains information pertaining to products which are carried by the retailer.

Property	Type	Required	Description
ProductId	String	Mandatory	Unique Product Identifier. This is the retailer's own unique product identifier (Internal Retailer Product Code or a Global Product Identifier) that the retailer uses to uniquely identify the product in their internal ERP and Sales Systems
Manufacturer	String	Mandatory	The name of the Manufacturer/OEM
ProductName	String	Mandatory	The name of the Product
ProductUrl	String	Mandatory	The URL of the Product on the retailers site
ProductCodes	Array of ProductCodes	Optional **(See: Note)**	An optional collection of additional product codes (EAN, UPC, GTIN, etc…) which is utilized by our retailer to manufacturer product matching system, in cases where the mandatory ProductId is an internal retailer product Identifier. See ProductCode *Note: If the ProductId supplied is an internal retailer product Identifier, then you should endeavour to include an industry standard product identifier in this section*
Category	String	Optional	The category of the product (e.g. FMCG, Electronics)
CurrencyCode	String	Optional	3 Character ISO Currency Code if Price is being provided
Price	Double	Optional	Price is an optional value. Certain suppliers & retailer supply pricing information which can be included in Buy Now results, however for Markets which cannot supply price (for Legal/Contractual reasons), this property can be omitted

Stock	String	Optional	Stock/Availability level. Supports only these values, in English:
			1. For Available (In Stock) products:
			    a. In Stock
			    b. Available
			    c. Available to ship
			    d. True

			e. Yes
			f. Y
			g. 1 (or any value greater than 0)
			2. For Out of Stock products:
			  a. Out of Stock
			  b. Not Available
			  c. False
			  d. No
			  e. N
			0

StockLevel	`String`	Optional	Supports strings such as: "Between 10-20 in stock", "50 units"," 50 pcs"," 10-20"
Images	`Array of Images`	Optional	An optional collection of image URLs for rendering a picture of the product on a brand manufacturer advertising site as it appears on the retailer. See Image
LocalizedAddresses	`Array of LocalizedAddresses`	Optional	An optional collection of product URLs. The collection contains all product URLs for each culture info that appears on the retailer site. See LocalizedAddress
AdhocDataAttributes	`Array of AdhocProductData`	Optional	An optional collection of ad-hoc data attributes that are not part of the standard model and are product specific. See AdhocProductData

5.2   Additional Entities

5.2.1   Image

Specifies an optional image URI for a product

Property	Type	Required	Description
ImageUri	`String`	Mandatory	The URI of the image for a product

5.2.2   ProductCode

Specifies an additional optional product code for a product

Property	Type	Required	Description
ProductCodeType	`ProductCodeType`	Mandatory	The type of the product code. See ProductCodeType
Value	`String`	Mandatory	The product code value

5.2.3   LocalizedAddress

Specifies a localized URL for a product.

Property	Type	Required	Description
URL	`String`	Yes	The localized URL address
Locale	`String`	No	The culture code value. If a culture code is not supplied it is assumed that this is the default address

Multi-Lingual URL support for Products in XML/JSON

Some retailers will make the same product available at multiple URLs for the purposes of rendering the retailer product page in different languages. To support this, the retailer data format supports a nested collection of additional URLs which can be optionally provided in the XML/JSON format. e.g. A product (Id: 12345) is available on a Canadian retailer's site in 2 languages, English & French

- https://www.example-retailer.ca/fr-CA/p12345.html
- https://www.example-retailer.be/en-CA/p12345.html

The retailer should include 2 additional data points in the LocalizedAddresses section of the feed as follows

```
"LocalizedAddresses": [ {
            "URL": "https://www.example-retailer.ca/fr-CA/p12345.html",
            "Locale": "fr-CA"
    }, {
            "URL": "https://www.example-retailer.ca/en-CA/p12345.html",
            "Locale": "en-CA"
    }
]
```

5.2.4 AdhocProductData

Specifies an ad-hoc data attribute for the product, for example: color, size, rating etc.

Property	Type	Required	Description
Name	String	Yes	The name of the attribute
Value	String	Yes	The value of the attribute

Ad-hoc data attributes support for Products in CSV

Some products may have additional/non-standard information e.g.: colour, size, weight. To support this, the retailer data format supports a nested collection of additional data points which can be included. E.g. A product has the colour red. You can choose to include an additional data point in the AdhocDataAttributes section of the feed as follows

Json example:

```
"AdhocDataAttributes": [ {
            "Name": "Colour",
            "Value": "red"
    } ]
```

XML example:

```
<AdhocDataAttributes>
    <AdhocProductData>
        <Name>Colour</Name>
        <Value>Red</Value>
    </AdhocProductData>
</AdhocDataAttributes>
```

5.3   Enumerations

5.3.1   ProductCodeType

This enumeration specifies what the type of the Product Code is. The optional values are:

- UPC
- EAN
- CTIN
- GTIN
- ASIN
- OTHER
- A2C

6 Entity Data for CSV

Important

- Properties/Columns which are marked **"Optional"** can be omitted from the generated CSV files. If included, they must have a valid value for that data type, (i.e. they cannot be empty/BLANK)
- The CSV File must contain a header row containing the column names as outlined below
- Column names which are included are case sensitive and must match the same casing outlined in this document and the supplied examples
- CSV files should be UTF-8 encoded.
  - Columns should be delimited by the comma character. Strings should be wrapped in double quotes if the string value contains a literal comma.
  - Lines should be delimited by a CRLF

6.1 Product Data

Each row in the CSV file represents one specific product object and contains meta data describing the product.

Property	Type	Required	Description
ProductId	String	Mandatory	Unique Product Identifier. This is the retailer's own unique product identifier (Internal Retailer Product Code or a Global Product Identifier) that the retailer uses to uniquely identify the product in their internal ERP and Sales Systems
Manufacturer	String	Mandatory	The name of the Manufacturer/OEM
ProductName	String	Mandatory	The name of the Product
ProductUrl	String	Mandatory	The URL of the Product on the retailer's site
Category	String	Optional	The category of the product (e.g. FMCG, Elec)
CurrencyCode	String	Optional	3 Character ISO Currency Code if Price is provided
Price	Double	Optional	Price is an optional value. Certain suppliers & retailer supply pricing information which can be included in BuyNow results, however for Markets which cannot supply price (for Legal/Contractual reasons), this property can be omitted
Stock	String	Optional	Stock/Availability level. Supports any string such as "4 Units", "In Stock", "Not Available"
StockLevel	String	Optional	Supports strings such as: "Between 10-20 in stock", "50 units"," 50 pcs"," 10-20"
UPCCode	String	Optional	The value of the UPC code
EANCode	String	Optional	The value of the EAN code
CTINCode	String	Optional	The value of the CTIN code

GTINCode	String	Optional	The value of the GTIN code
ASINCode	String	Optional	The value of the ASIN code
OtherCode	String	Optional	The value of the Other code
			Note: If the ProductId supplied is an internal retailer product Identifier, then you should endeavour to include one of the above industry standard product identifiers to assist with Product matching/identification
A2CCode	String	Optional	The value of the Add to Cart code
ImageUri	String	Optional	The URI of the image for a product
ProductUrl_<cultureInfo>	String	Optional	The URL of the product on the retailer's site corresponding to culture Info. See Note Below.
Adhoc_<name>	String	Optional	The ad-hoc product attribute value corresponding to <name>. See Note Below.

Multi-Lingual URL support for Products in CSV

Some retailers will make the same product available at multiple URLs for the purposes of rendering the retailer product page in different languages. To support this, the retailer data format supports a flexible convention-based format to allow the retailer to specify multiple additional URLs for the product in the CSV format.

e.g. A product (Id: 12345) is available on a Canadian retailer's site in 2 languages, English & French

- https://www.example-retailer.ca/fr-CA/p12345.html
- https://www.example-retailer.be/en-CA/p12345.html

The retailer should include 2 additional columns in the data feed CSV with the column titles

`ProductUrl_en-CA, ProductUrl_fr-CA`

Ad-hoc data attributes support for Products in CSV

Some products may have additional information that we want to have available, for example: colour, width, weight. To support this, the retailer data format supports a flexible convention-based format to allow the retailer to specify multiple additional attributes for the product in the CSV format.

e.g. A product (Id: 12345) has the colour red and the rating 5 stars.

The retailer should include 2 additional columns in the data feed CSV with the column titles

`Adhoc_Colour, Adhoc_Rating`

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7 Samples

7.1 See: "Online Data Samples"

1. XML Examples
   a. An XML Schema (XSD) which can be used for verifying any generated Location files or Product Data files
   b. An example of a Products XML file containing online product information
2. JSON Examples
   a. An example of a Products JSON file containing online product information
3. CSV Examples
   a. An example of a Products CSV file containing online product information

The onboarding pack also include a Microsoft.NET Core DLL compliant with .NET Standard 2.0 which can be can be used for programmatic generation of the XML, JSON and CSV objects/documents.