CONTENTS

DOCUMENT VERSION HISTORY

Version	Date	Updated by	Changes Made
1.0	28th March 2019	Brent Berg	
1.01	10th April 2019	Brent Berg	• Updated some Product Structure endpoint names • Added multiple sections on Product Version and Product Variant assets
1.02	24th July 2019	Brent Berg	• Changed ‘replaces’ attribute name with ‘replacesParent’ attribute name
1.03	19th November 2019	Danielle Jones	• Added Open Image URLs endpoint information

SUMMARY

This guide details steps to utilize the Kwikee Manufacturer API to maintain another database of product content or to query your content. The endpoints described in this guide can be used to access all your content in Kwikee, including archive and work-in-progress materials. Every entity in the system is an asset with a unique 'assetId' including brands, product versions, product variants, images and permission groups.

In this document:

- Text in red font, highlights the exact names of API endpoints like Product Structure - GTIN
- Attribute or parameter names are in single quotes like 'assetId'
- Values are in double quotes like "2000-01-01T00:00:00Z"

ENDPOINT DESCRIPTIONS

The following descriptions summarize the API endpoints used in this document. Detailed specifications can be found at portal.kwikee.com.

1. GTIN List updated since: Returns JSON with a list of GTIN strings for current products on which data or images have changed since the provided timestamp.
2. Product Structure – GTIN: Returns JSON with the product entity structure of the current version of the product with the provided GTIN. The structure includes images for the product entity and sub-structures with 'assetId's of other product versions and product variants that are tied to the current version.
3. Product Structure – Asset ID: Returns JSON with the product entity structure of the provided 'assetId' which can be the 'assetId' of any product version or product variant.
4. Product Version – Retrieve: Returns JSON with product data for the provided 'assetId' which can be a product version or product variant entity.
5. Image Asset – Retrieve: Returns JSON with the image meta data for the provided image 'assetId'. Image metadata includes all attributes and a 'files' substructure. Files are provided by URL.
6. Open Image URLs - GTIN: Returns JSON with image metadata and URLs of product images published on the Kwikee CDN for the current product that matches the 14-digit GTIN code.
7. Open Image URLs - Asset ID: Returns JSON with the image metadata and URLs of the product images published on the CDN for the product 'assetId' provided.

COMMON API USES

INITIALIZE OR REFRESH ANOTHER DATABASE OF CONTENT

NOTES

- This workflow focuses only on **current** product version assets and ignores archive or work-in-progress versions.

STEPS

1. Call the GTIN List updated since API endpoint with the following parameter

   a. Parameter: ‘updatedSince’, value: “2000-01-01T00:00:00Z”
2. For each GTIN listed call the Product Structure - GTIN endpoint
   a. The ‘assetId’ of the current product version is the ‘assetId’ in the returned data structure
   b. Store this ‘assetId’ for future use
3. Call the Product Version – Retrieve endpoint with the ‘assetId’ from the previous step
   a. The returned data structure has all product data for the current product version
4. For each image ‘assetId’, Call the Image Asset – Retrieve endpoint
   a. Store the image ‘assetId’ in your database for future use

MAINTAIN ANOTHER DATABASE OF CONTENT THROUGH INCREMENTALS

NOTES

- This workflow focuses only on **current** product version assets and ignores archive or work-in-progress versions.
- The following steps are usually executed on a regular schedule, for example daily or weekly. However, the interval can be whatever you choose, as long you track the timestamp of the previous incremental execution.

STEPS

1. Call the GTIN List updated since API endpoint with the following parameter
   a. Parameter: ‘updatedSince’, value: “**2019-03-25T00:00:00Z**”
   This value is the timestamp of your last initialization or incremental execution.
2. For each GTIN listed call the Product Structure - GTIN endpoint
   a. The ‘assetId’ of the current product version is the ‘assetId’ of the returned data structure
3. If your system will be tracking product version changes, compare the returned ‘assetId’ to the ‘assetId’ stored in your system
   a. If the ‘assetId’ changes you may decide to archive your current data set before replacing it and storing the new ‘assetId’ value.
   b. If the ‘assetId’ changes, the previous ‘assetId’ will show up in the returned ‘versions’ array
4. In the returned data structure, compare the ‘lastModified’ date of the ‘gtin’ object to your ‘updatedSince’ value
   a. If the ‘lastModified’ date is newer, call the Product Version – Retrieve endpoint with the id from the previous step
      i. The returned data structure has all the product data
5. For each image asset returned in the product data structure
   a. Check if the image ‘assetId’ matches an image id in your system and if it does
      i. Compare the ‘lastModified’ date to your ‘updatedSince’ value

        ii. If the 'lastModified' date is newer, call the Image Asset – Retrieve endpoint and update your image record

    b. If the image 'assetId' does not match one in your system, call the Image Asset – Retrieve endpoint and look for a 'replacesParent' attribute which contains image 'assetId's of a replaced image

        iii. If a 'replacesParent' 'assetId' value matches an image id in your system

            1. Replace your image asset with the incoming image asset and store the new image 'assetId'

    2. If there are no matches at the top level or the 'replacesParent' id level, then the image asset is new and should be stored in your system with its image 'assetId'

6. For the next incremental, repeat steps 1 to 5 using an updatedSince value of your previous incremental execution

RETRIEVING OPEN IMAGE URLS

Details about Kwikee's CDN hosted open image URLs are provided in the Open Image URLs section below, including the content requirements for hosting.

RETRIEVING OPEN IMAGE URLS FOR THE "CURRENT" PRODUCT VERSION

1. Call the Open Image URLs - GTIN endpoint with your GTIN value
   This will return JSON with URLs for all CDN hosted images on the "current" product version of that GTIN

RETRIEVING OPEN IMAGE URLS FOR ANY PRODUCT VERSION OR VARIANT

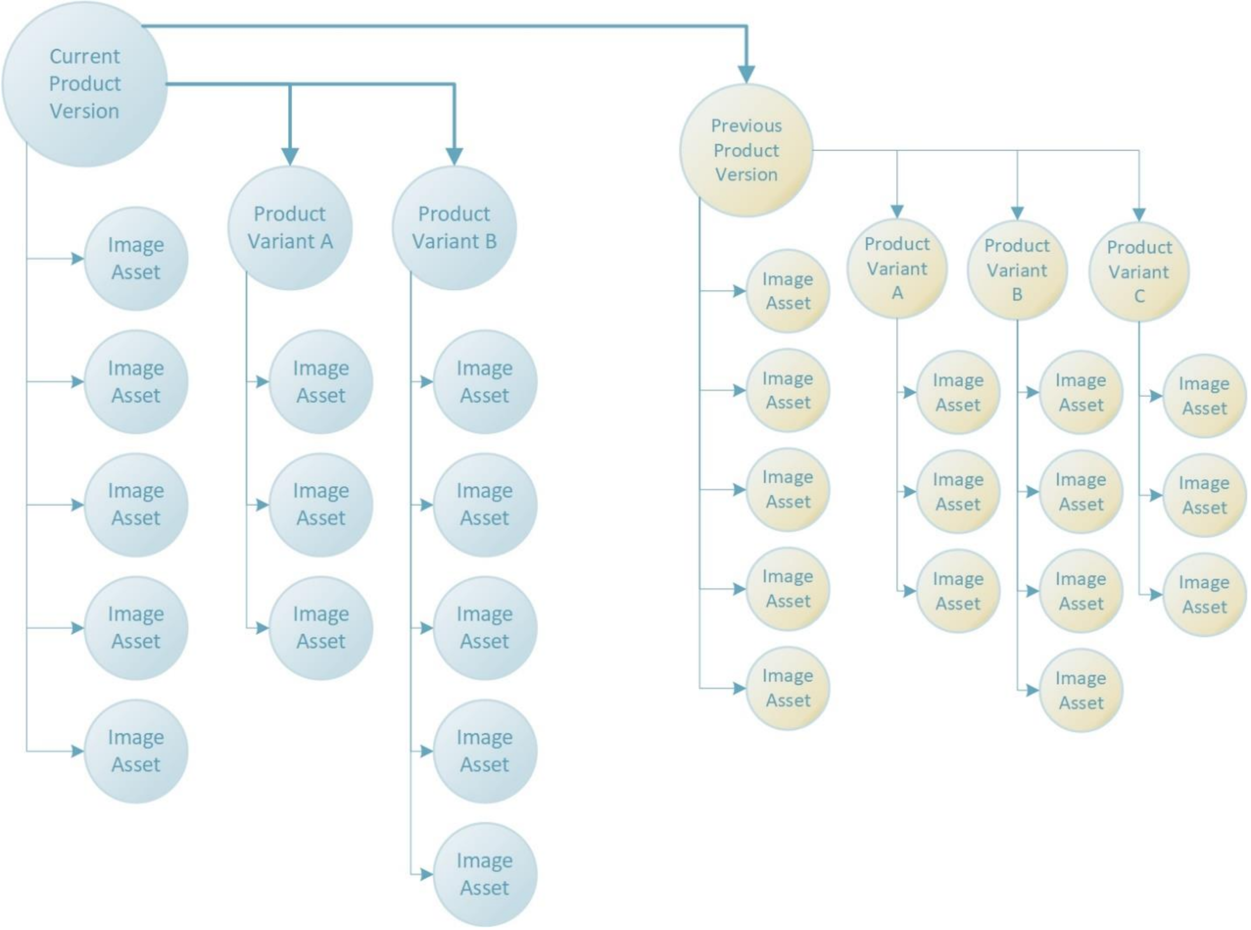
1. Call the Product Structure - GTIN endpoint with your GTIN value
   This endpoint is the entry way into the product and its JSON includes arrays for other product version and variant entities in our system
2. Find the 'assetId' tied to the product version or variant entity for which you need open URLs
3. Call the Open Image URLs - Asset ID endpoint with the 'assetId' of your product version or variant
   This will return JSON with URLs for all CDN hosted images tied to that product entity. As noted above, there are content requirements for CDN hosted open image URLs, so if you do not get the URLs you expect, please work with your Project Coordinator.

USING EXPIRY DATE

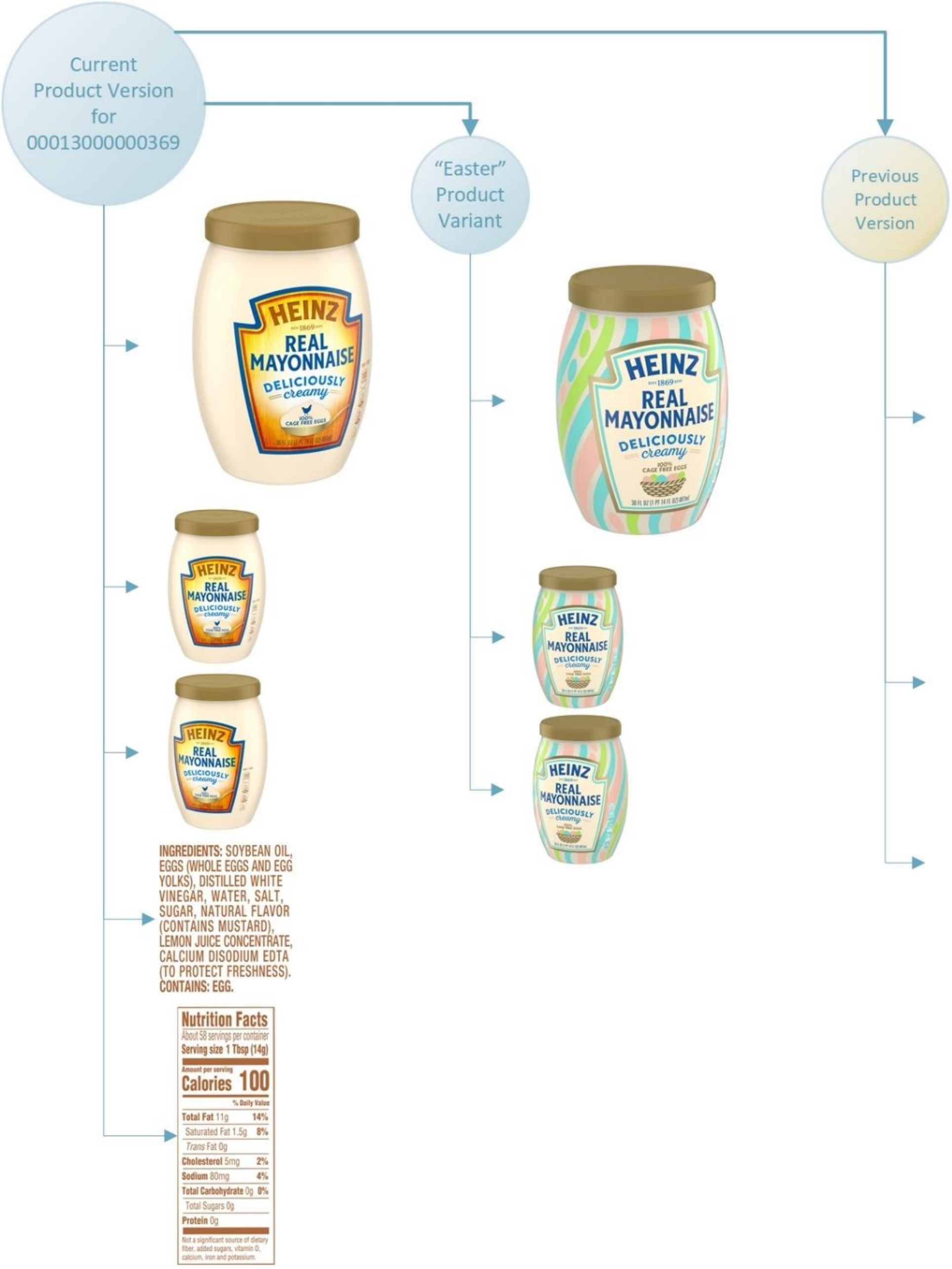
The 'expiryDate' represents the date the product or image asset should be archived or removed from the client asset management system. Expired assets will always remain in the feed but are assetId's referenced from the current product that rarely change after they expire.

ILLUSTRATING PRODUCT VERSION AND PRODUCT VARIANT STRUCTURES

The following diagram illustrates a more complete product data structure including an old product version and many variants.



The next diagram provides a real-world example of a product with one old version and one variant.



INGREDIENTS: SOYBEAN OIL, EGGS (WHOLE EGGS AND EGG YOLKS), DISTILLED WHITE VINEGAR, WATER, SALT, SUGAR, NATURAL FLAVOR (CONTAINS MUSTARD), LEMON JUICE CONCENTRATE, CALCIUM DISODIUM EDTA (TO PROTECT FRESHNESS). CONTAINS: EGG.

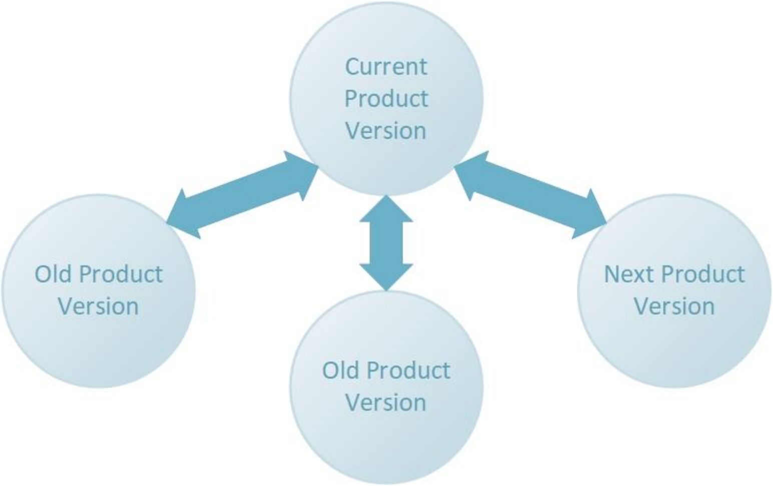
Nutrition Facts	
About 58 servings per container	
Serving size 1 Tbsp (14g)	
Amount per serving Calories	100
	% Daily Value
Total Fat 11g	14%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 80mg	4%
Total Carbohydrate 0g	0%
Total Sugars 0g	
Protein 0g	
Not a significant source of dietary fiber, added sugars, vitamin D, calcium, iron and potassium.	

ACCESSING OTHER PRODUCT VERSIONS

The Product Structure - GTIN endpoint always returns the product structure of the current product version for a given GTIN. When a new product version becomes primary, Product Structure - GTIN will return a product structure with a new 'assetId' at the top level and the replaced product version's 'assetId' will appear in the 'versions' sub-structure.

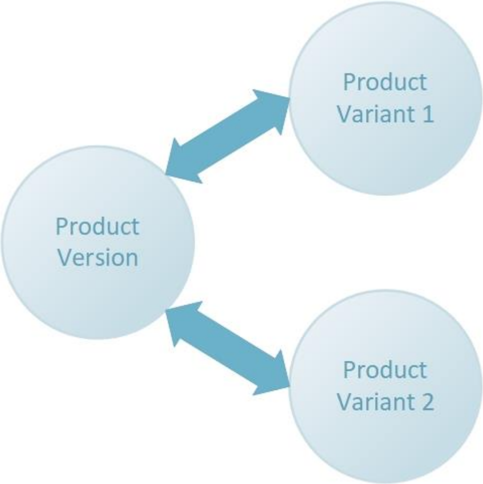
The complete structure for the old product version, or any product version, can be access by using the Product Structure – Asset ID endpoint. Old product versions, or any non-current product version, will only report a relationship with the current product version.

The product structure within the database is centered on the current product version as illustrated in the following diagram.



ACCESSING PRODUCT VARIANTS

Product Variants are always tied to a Product Version and appear in the product structure in the 'variants' sub-structure.



Product Variant structure information can be retrieved by using the Product Structure – Asset ID endpoint. Product Variant data can be retrieved by using the Product Version – Retrieve endpoint with the variant 'assetId'. Product Variants support an identical data structure to Product Versions and therefore data is retrieved using the same endpoint.

OPEN IMAGE URLS

DETAILS

Kwikee CDN hosted open image URLs provide authentication free URLs which can be embedded in other systems, applications, or web pages. Kwikee provides one URL per product image asset with the best quality JPG file available for that asset.

The filenames used in our image URLs are derived from the ‘baseFilename’ attribute described in the “Kwikee API Image Identification” document which you can reference for format and code definitions.

REQUIREMENTS

Your Kwikee team will work with you to ensure your product content meets the requirements for CDN hosted open image URLs. Those requirements include the following.

- Product and images published in the Kwikee CDN publishing environment
- Product image assets with GS1 codes or a Kwikee Special Code
- Product image assets with a Kwikee:GS1 file type or a Kwikee:JPG file type