



FOODSERVICE

Product Images Application Guideline

PREPARED BY THE FOODSERVICE GS1 US STANDARDS INITIATIVE WORKGROUP

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THE GLOBAL LANGUAGE
OF BUSINESS

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ABOUT GS1

GS1® is a neutral, not-for-profit, global organization that develops and maintains the most widely-used supply chain standards system in the world. GS1 Standards improve the efficiency, safety, and visibility of supply chains across multiple sectors. With local Member Organizations in over 110 countries, GS1 engages with communities of trading partners, industry organizations, governments, and technology providers to understand and respond to their business needs through the adoption and implementation of global standards. GS1 is driven by over a million user companies, which execute more than six billion transactions daily in 150 countries using GS1 Standards.

ABOUT GS1 US

GS1 US, a member of GS1 global, is a not-for-profit information standards organization that facilitates industry collaboration to improve supply chain visibility and efficiency through the use of GS1 Standards, the most widely used supply chain standards system in the world. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration that optimizes their supply chains, drives cost performance and revenue growth while also enabling regulatory compliance. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code-based RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®).

ABOUT FOODSERVICE GS1 US STANDARDS INITIATIVE

The Foodservice GS1 US Standards Initiative serves as a strategic effort in which industry trade associations and individual companies may choose to join on a voluntary basis to assist with their company's adoption and implementation of GS1 Standards. Nothing herein should be construed as constituting or implying an agreement among foodservice companies to adopt or implement GS1 Standards. Nothing herein should be construed as constituting or implying an agreement regarding any company's prices, output, markets, or dealings with customers and suppliers. Nothing herein is inconsistent with the proposition that each participating company must and will exercise its independent business judgment on all standards adoption.

THE GS1 SYSTEM

The GS1 System is an integrated suite of global standards that provides for accurate identification and communication of information regarding products, assets, services and locations. Using GS1 identification numbers, companies and organizations around the world are able to globally and uniquely identify *physical things* like trade items, assets, logistic units and physical locations, as well as *logical things* like corporations or a service relationship between provider and recipient. When this powerful identification system is combined with the Global Data Synchronization Network™ (GDSN®), the connection is made between these physical or logical things and the information the supply chain needs about them.

INTRODUCTION

This application guideline provides detailed guidance on how to apply GS1 Standards for product images to digital images associated with foodservice products. It is based on the *GS1 General Specifications*, and developed using guidelines that were originally prepared by GS1®. The GS1 Global Trade Item Number® (GTIN®) is used as the product identification number throughout.

This guideline provides details on all aspects of digital imaging as it relates to GS1 Standards. This document does not specify how the images should be delivered via electronic commerce. Image delivery is beyond the scope of this guideline. The sections highlighted in yellow are pending approval through the Global Standards Management Process (GSMP) and are subject to change based upon the consensus of the Workgroup.

PART 1: General Guidelines

1 MARKETING IMAGE SPECIFICATIONS

1.1 OVERALL SUPPLIED PHOTOGRAPHY GUIDELINES

It is understood that there will be instances where photography other than “product” photography will be needed. In addition, situations may arise where product shots are needed at a size or resolution that exceeds the above-mentioned standards. In such cases, it will be up to the customer to either originate the photography themselves, or make arrangements with the vendor to supply that photography on an “as needed” basis. All supplied photographs should conform to the guidelines listed below, or based on customer-defined needs/specifications.

1.2 FILE CHARACTERISTICS

- No alpha channels or layers, guides or rulers.
- No bubbles, fingerprints or Newton rings from scans.
- No transfer functions or postscript color management.
- No signatures, “finger printing” or visible watermarks. No compression artifacts. No interpolation (“resizing up”).
- No scanning from printed pages.
- No evidence of dust or scratches.
- No manufactured shadows.
- Moiré Patterns should be minimized.

1.3 GUIDELINES FOR IMAGE COLOR AND QUALITY

No color casts. Color should be as rich, vibrant and eye-catching as possible. Color should be balanced overall and not “blown-out” in highlights. Flesh tones and grass should be realistic and life-like. Reflections should also be realistic. Shadows should be realistic and neutral. Retouching should be as seamless and undetectable as possible and be convincing at a minimum of 200% magnification (e.g., removal of expiration/best before dates). Please see the section below entitled *File Name Construction* for indication of new product or promotional tag rules. Color should be matched to product PMS colors (list to be provided by designer). If PMS color is not available or if color is proprietary, users must either match as closely as possible to color swatches or the actual RGB breakdown must be provided.

1.4 END USAGE FORMATS

It is recognized that due to the many potential combinations of format, resolution and size in end user applications, it is not possible to enumerate all possibilities in a standard. It is the understanding that the specifications recommended for advertising images are of sufficiently high quality that they will provide a source image that can be repurposed by the end user for their own specific applications. This includes different print media formats and items as well as eCommerce (electronic) images.

1.5 PRODUCT PHOTOGRAPHY

Decisions as to whether products should be photographed in the package, out of the package, or both should be made based on the presentation of the product in a live sale scenario. If there are doubts as to which format is most appropriate, both should be taken and appropriately identified. This decision should be communicated to the manufacturer.

Note: No props or additional objects should be in the frame (for this nature/type – see section on File Name Construction). This applies to still shots for products (single GTIN).

Backgrounds: All backgrounds are recommended to be knocked out to white (RGB 255/255/255).

1.6 CLIPPING PATHS

All images that are outlined must contain a clipping path in order for the product to be outlined. It is very important for the purpose of batch image repurposing that the clipping path be named “Path 1.” Default flatness setting should be 1-device pixels.

1.7 IMAGE SIZE

For standard resolution images:

- Minimum image size per side: 75 mm (3.0 in.) (900 pixels)
- Maximum image size per side: 200 mm (8.0 in.) (2400 pixels)
- File resolution: 300 dpi
- Square aspect ratio is maintained (1:1) for automatic processing

For high-resolution images:

- Minimum image size per side: 200 mm (8.0 in.) (2400 pixels)
- Maximum image size per side: 400 mm (16.0 in.) (4800 pixels)
- File resolution: 300 dpi
- Square aspect ratio is maintained (1:1) for automatic processing

1.8 FILE FORMAT AND COLOR MODE

- File format: LZW TIFF format
- Delivery of the image will be at the minimum image quality and trading partner agreements can dictate the storage of the image in an alternate format, i.e., JPEG format (quality level maximum or level “number 12”)
- Color Mode: RGB

Note: The ICC profile or exact color space must be known and defined. The preference for storage of the source file is RGB 8 bit per channel.

1.9 PRODUCT VIEWS

For 2D images (i.e., images of products with negligible depth properties), a 0 degree plunge angle is permitted.

2 FILE NAMING

2.1 FILE NAME

A significant portion of the Marketing image standard covers the naming conventions to identify the views represented by each image. There could be multiple languages on a product leading to exceptionally long file names. There could also be more than one marketing view available for a product. For example, a product in Country A with bilingual packaging will not have the same GTIN as the same product sold in Country B which has another set of languages. The languages on the packaging will be unique to the specific product GTIN.

When all merchandisable views contain all languages present on packaging, there is no need for a language indicator (i.e., a default in-package, primary merchandisable view). A unique language indicator is only required when alternate views with unique language facings exist (i.e., alternate side of same product with alternate language view). For example, the English view would add the “_en” to the file name.

This leads to the other key aspect of identification: *when a product has multiple merchandisable faces, which is the primary?* To resolve this question, refer to the existing standards for determining the front face found in Section 6.8 of the *GS1 General Specifications* (see the following excerpt):

6.8.1.3.2 “For the purposes of this standard, the Default Front is the side with the largest surface area that is used by the manufacturer to ‘sell’ the product to the consumer, in other words, the side with markings such as the product name.”...

“Some product packages have more than one possible front with the same surface area. These products can be presented both vertically and horizontally on the shelves. If a product package has more than one possible front, the highest side is considered to be the Default Front”.

2.2 FILE NAME CONSTRUCTION

Table 1 below provides a key for how to populate each character when constructing the file name for a still-shot, single GTIN or a still shot product single GTIN with supporting elements in image.

FILE NAME CHARACTER	DESCRIPTION	VALUES	
FIRST 14 CHARACTERS	<ul style="list-style-type: none"> Product-specific GTIN Numeric 		
15 TH CHARACTER	<ul style="list-style-type: none"> Underscore spacer 		
16 TH CHARACTER <i>Note: This section is subject to frequent updates.</i>	<ul style="list-style-type: none"> File nature/type indicator Alphanumeric designation <p><u>Note:</u> Planogram images are exempt from this convention.</p>	A	Still shot product single GTIN
		B	Still shot product single GTIN with supporting elements in image
		C	Still shot product single GTIN (High Resolution)
		D	Still shot product single GTIN with supporting elements in image (High Resolution)
		Z	Undetermined

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FILE NAME CHARACTER	DESCRIPTION	VALUES	
17 TH CHARACTER	<ul style="list-style-type: none"> • Facing indicator • Numeric designation • As with planogram images, a front determination is required with all subsequent faces relative to the front face 	1	Front
		2	Left
		3	Top
		7	Back
		8	Right
		9	Bottom
18 TH CHARACTER	<ul style="list-style-type: none"> • Angle identifier (i.e., angle reference relative to the face being represented) • Alphanumeric designation 	C	<i>Center</i>
		L	<i>Left</i>
		R	<i>Right</i>
19 TH CHARACTER	<ul style="list-style-type: none"> • In/Out of packaging indicator • Alphanumeric designation 	<p>If the value of the 16th position of the file naming convention is</p> <p style="text-align: center;"><i>“A - Still shot product single GTIN”</i></p> <p style="text-align: center;">or</p> <p style="text-align: center;"><i>“C - Still shot product single GTIN (High Resolution)”</i></p> <p>the following values are available for the 19th character position:</p>	
		1	<i>In packaging</i>
		0	<i>Out of packaging (i.e., the product as it first arrives “out of packaging” -- not how it appears after it has been processed or prepared)</i>
		A	<i>Case – A shot of the product in its case as it would appear to the operator upon delivery.</i>
		B	<i>Innerpack – A shot of the product as it would appear inside its packaging inside the case.</i>
		C	<i>Raw/Uncooked – A shot of a product that has not been cooked or processed or that needs to be cooked or further prepared before it is considered edible.</i>
		D	<i>Prepared - A shot of a product that has been taken from a raw or uncooked state to a cooked state according to the appropriate method of preparation (e.g., baked, fried, grilled or boiled).</i>

continued on next page...

FILE NAME CHARACTER	DESCRIPTION	VALUES
19 TH CHARACTER (CONTINUED)		<p>If the value of the 16th position of the file naming convention is <i>“B - Still shot product single GTIN with Supporting Elements in Image”</i> <u>or</u> <i>“D - Still shot product single GTIN with Supporting Elements in Image (High Resolution)”</i>- the following values are available for the 19th character position:</p>
		<p>1 <i>In packaging</i></p>
		<p>0 <i>Out of packaging (i.e., the product as it first arrives “out of packaging” -- not how it appears after it has been processed or prepared)</i></p>
		<p>A <i>Case – A shot of the product in its case as it would appear to the operator upon delivery.</i></p>
		<p>B <i>Innerpack – A shot of the product as it would appear inside its packaging inside the case.</i></p>
		<p>C <i>Raw/Uncooked – A shot of a product that has not been cooked or processed or that needs to be cooked or further prepared before it is considered edible.</i></p>
		<p>D <i>Prepared - A shot of a product that has been taken from a raw or uncooked state to a cooked state according to the appropriate method of preparation (e.g., baked, fried, grilled or boiled).</i></p>
		<p>E <i>Plated - Prepared food arranged simply on a serving plate, dish or bowl for better visibility. May include an additional step, such as garnishing, icing, seasoning or other enhancement.</i></p>
		<p>F <i>Styled - Carefully and artfully arranged for an attractive visual presentation, and designed to suggest the taste, aroma and appeal of the actual dish. May include complementary items (e.g., an entrée and sides) to present the impression of a complete meal. May also include an additional step, such as garnishing, icing, seasoning or other enhancement. May be presented with different backgrounds and at different angles.</i></p>
		<p>G <i>Staged - A shot of a product that has been arranged for display in such a way as to provide clear visibility. The product may be propped up if necessary for optimum viewing, but it should not be held or used in any way by a person.</i></p>
		<p>H <i>Held - A shot of a product that has been held out for display by one hand or a pair of hands. When relevant, proper grip should be demonstrated. Apart from the hands and forearms, no part of the person holding the item should be visible.</i></p>
		<p>J <i>Worn - A shot of a product, such as a protective item or article of clothing, which is worn by a person. The complete product should be visible inside the frame, but the individual wearing it should be cropped out as much as possible.</i></p>
		<p>K <i>Used - A shot of a product as it is meant to be used in its appropriate environment. Small utensils may be held in a hand or hands and used for their intended purpose.</i></p>
		<p>L <i>Family - A shot of a number of related products (e.g., matched sets, place settings) arranged together in a single picture.</i></p>
<p>M <i>Open Case - A shot of a case, flaps open, that shows how the product(s) would look when an operator receives the product and opens the case.</i></p>		

Table 1: Key to Populating the Characters in the File Name for a Still-Shot, Single GTIN

The following characters are optional additions to be used if the product being imaged requires them in the order in which they should appear.

FILE NAME	DESCRIPTION & VALUES
20 TH CHARACTER	<ul style="list-style-type: none"> • Underscore to separate optional identifiers
21 ST – 22 ND CHARACTERS	<ul style="list-style-type: none"> • Language indicator • 2 character alpha designation
23 RD – 26 TH CHARACTERS	<ul style="list-style-type: none"> • Image end date/promotional indicator • 4 character numeric or file effective end date time designation • MMYT that image is valid until (i.e., “1206” if image is good until December 2006 and then to be removed after 01 January 2007)

Table 2: Optional Characters in the File Name for a Still-Shot, Single GTIN

PART 2: Foodservice Product Image Style Guide

Part Two of this guide organizes products into fourteen different product categories, and provides additional guidelines and image examples for each category in order to expand on the general guidelines presented earlier. The product categories are:

- Meats (Beef and Pork)
- Poultry
- Seafood
- Produce
- Dairy
- Beverage
- Dry Grocery, Seasonings and Ingredients
- Dry and Canned Fruits and Vegetables
- Frozen and Refrigerated Grocery
- Frozen Fruits and Vegetables
- Shortenings and Oils
- Supplies and Equipment
- Disposables
- Janitorial and Chemical

Specific instructions for every type of product offered would be unnecessarily complex and beyond the scope of these standards. The advice and examples provided in the following pages should help you determine the best way to represent your products according to your experience and expertise.

3 PRIMARY IMAGES

The primary image is the first, most important image that appears on each product page. This image sets the customer’s expectations and ultimately influences customer expectations.

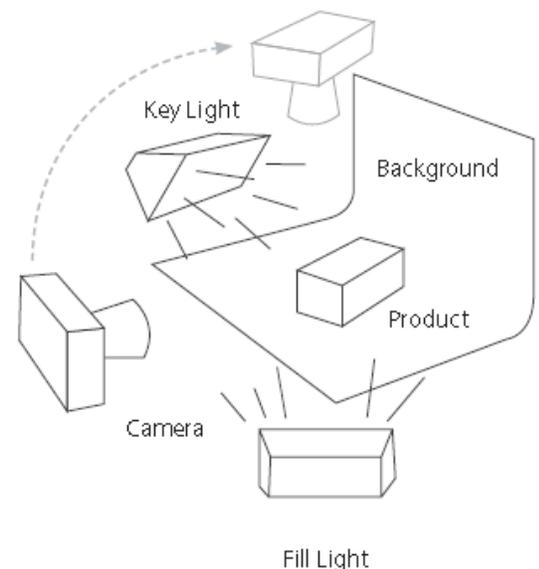
3.1 PHOTOGRAPHY GUIDELINES

Primary product images should conform to the following general guidelines. *(For technical requirements related to the image format, resolution, file name, etc., see pages 5-8.)*

- **Composition:** Show a single item (or a small serving size for items that typically appear in groups), as it first appears “out of the package.” The complete product should be visible inside the frame, without being clipped or cropped, and without any unnecessary negative space.
- **Brands:** Product images should not be branded, except for company logos and branding already in place on product packaging. No additional brands, logos or watermarks may be added to the image.
- **Orientation:** The image frame should be in a square format, with equal dimensions both horizontally and vertically. The image may be cropped. Remove white space. The entire product must remain visible.
- **Lighting:** Full, well-balanced lighting ensures that the product and surrounding background are evenly lit, with very slight or no shadows.
- **Shadows:** Subtle, natural shadows are acceptable. Do not alter the image to create artificial shadows or remove existing ones.
- **Angle of View:** Images should be taken at a downward angle to show all three dimensions—depth, width and height. Avoid using a straight-ahead or straight-down image (although straight-down views are acceptable for soups, sauces and other liquids shown in bowls).
- **Focus / Depth of Field:** The product should be clearly visible with an overall balanced focus.
- **Background:** The image background should be solid white and evenly lit. For certain food items, a solid white plate or bowl may also be used. If necessary, background lighting can be reduced to provide contrast with the product.

3.2 SETUP

For ideal results, photos should be taken against an even, white background with the product, lights and camera placed appropriately. Experienced photographers will know how to proceed. The illustration to the right is provided for the benefit of suppliers without the resources for professional photography.



3.3 PROPER USAGE

The images below provide examples of primary product images that meet the general requirements identified below the image.



Color



Group



Product angle



Full frame



Balanced lighting



Product representation

3.4 IMPROPER USAGE

These examples are not acceptable as primary images, for the reasons indicated.



Improperly cropped image



Super-imposed products



Multiple items



Watermark



Poor product legibility



Product staging (non-white background only for primary image)



Artificial drop-shadow



Improper aspect ratio



Too wide / too much negative space



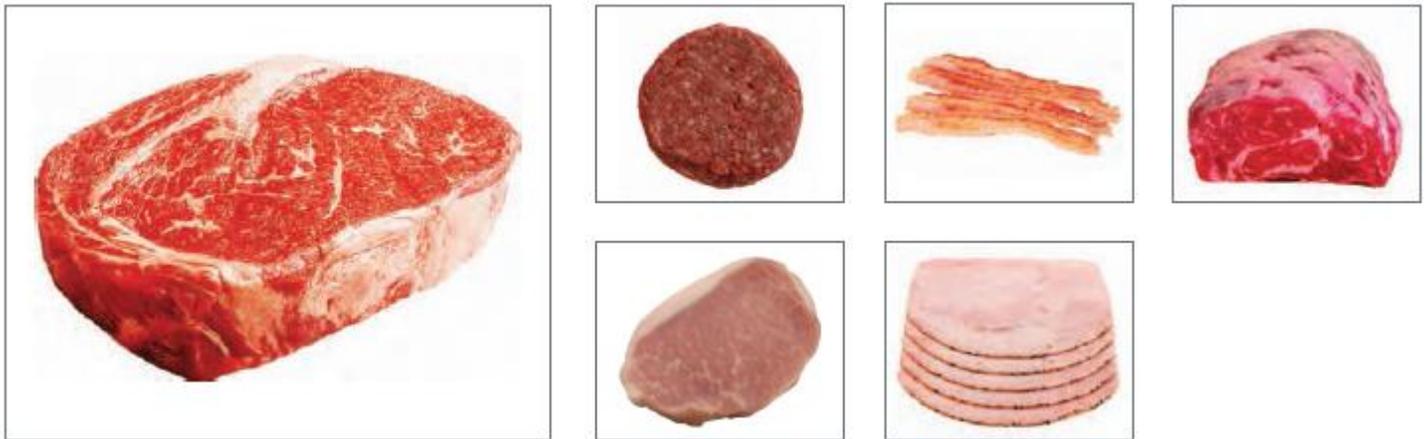
Improper background

4 MEATS (BEEF AND PORK)

4.1 PRIMARY IMAGES

For most meat, the ideal primary image would be a single item, thawed to show color and marbling. Ensure that the color and texture appear both natural and fresh. Too much light may cause the product to look too red, or even washed out. Not enough light may cause the product to appear dark or aged.

4.2 PRIMARY IMAGE EXAMPLES



4.3 SUBCATEGORIES

- **Ground (Bulk, Patties):** It is usually important to show the color, size and shape of raw patties in the primary image. Grind size can be relevant when ordering in bulk. Interior and exterior packaging may also be relevant, and should be covered by a supporting image.
- **Deli and Further Processed:** For deli meat (e.g., roast beef, ham, pastrami, etc.), the size and shape of the loaf are important. Be sure to show the cross-section in a face or slice. Again, packaging should be shown in a supporting image if it is relevant.
- **Primals/Subprimals/Commodity:** Large pieces of beef and pork should be shown as it will be delivered, whole or cut into portions. Color is important, as are fat and trim.
- **Cut/Portion Steaks:** Show pre-cut and portion-size steaks according to cut (e.g., ribeye, strip, filet, chop, etc.). Be sure to show color and marbling, as well as the width and thickness of the cut.

4.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



Styled

5 POULTRY

5.1 PRIMARY IMAGES

For most products in this category, the ideal image would be a single item, thawed to show its natural color. Even thawed, poultry products may still appear white, or nearly white. Use special care in arranging and lighting the product to show it clearly against a white background.

5.2 PRIMARY IMAGE EXAMPLES



5.3 SUBCATEGORIES

- **Commodity:** Show the product as it will be delivered, whole or cut into portions. Packaging can be shown in a supporting image, especially for items that are individually quick frozen (IQF).
- **Further Processed:** Breaded, battered and/or seasoned items may be cooked to provide a more accurate understanding of the product. Small groups of 3–5 like items (based on a typical portion size) may be used for products that generally do not occur singly.
- **Deli:** It is important to show the size and shape of the loaf in the primary image. Supporting images should include a face or slice to show the cross-section.
- **Specialty:** Apart from chicken and turkey, this category includes specialty items such as poultry sausages and game birds like duck, quail, etc. No matter how exotic, these products are subject to the same guidelines as traditional items in this category.

5.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



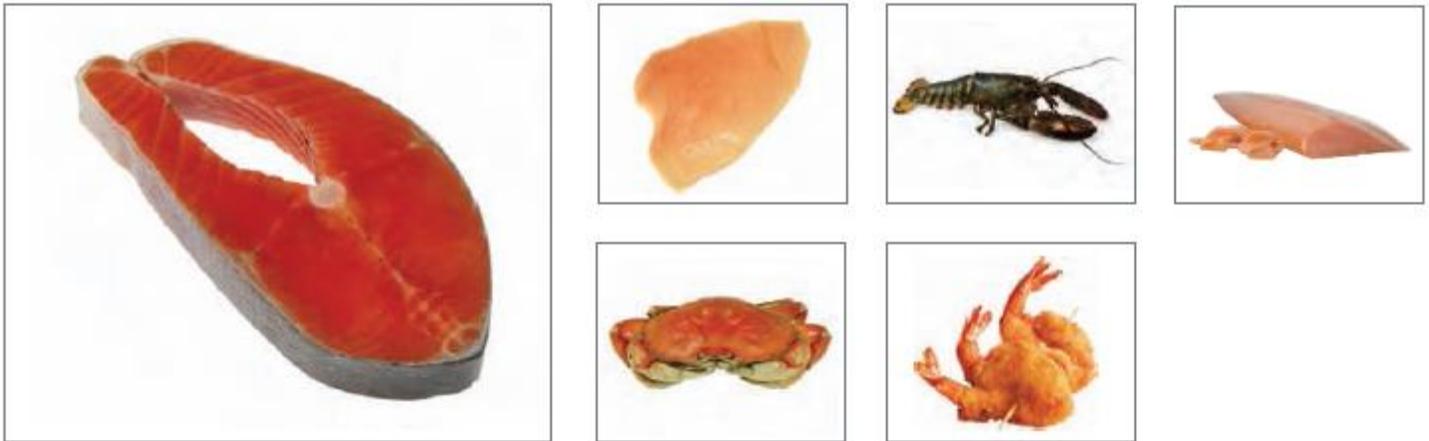
Styled

6 SEAFOOD

6.1 PRIMARY IMAGES

Seafood is generally considered a center-of-plate item. The primary image should display a single item in its raw, unprepared, thawed state. Prepared and styled photos should be reserved for additional images. With some exceptions (e.g., salmon), seafood is usually pale white, sometimes with a yellowish or brownish hue. Careful lighting may be required to show the product accurately against a white background.

6.2 PRIMARY IMAGE EXAMPLES



6.3 SUBCATEGORIES

- **Finfish:** Most seafood is sold pre-portioned. Some fish (e.g., salmon) are sold in larger portions or a whole fish, but the industry has moved toward sizing and cutting for labor and convenience. Do not show a whole fish if the product will be delivered pre-portioned, and vice versa. Show the exact portion size that the operator will receive. If portion of a fish is shot, show meat side up.
- **Shellfish:** Shrimp are provided in a wide variety of pack styles and sizes, making them the largest seafood subcategory. The primary image should make clear exactly which variety is being ordered. Other shellfish should be shown as they would arrive to the operator, prior to any additional preparation. Please consider a supporting image featuring shellfish packaging if it is an important operator advantage.

6.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



Styled

7 PRODUCE

7.1 PRIMARY IMAGES

Products in this category should generally be shown in their fresh state, naturally picked. The example used in the primary image should fairly represent the produce that will be delivered to the customer in shape, size and color. An idealized, unblemished image may unreasonably inflate customer expectations, leading to disappointment and dissatisfaction.

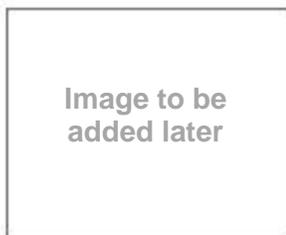
7.2 PRIMARY IMAGE EXAMPLES



7.3 SUBCATEGORIES

- **Commodity:** The primary image should show a single, whole item or a small group of like items (depending on portion size).
- **Pre-Cut / Value-Added:** Pre-cut produce should be removed from its package and arranged for inspection.
- **Wet Salads:** Deli salads and other prepared wet salad mixes can be shown in a plain white serving bowl.

7.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



Styled

8 DAIRY

8.1 PRIMARY IMAGES

Apart from cheese, most dairy items can be shown in their smallest unit of packaging, such as a single wrapped stick of butter, carton of milk, etc.

8.2 PRIMARY IMAGE EXAMPLES



8.3 SUBCATEGORIES

- **Cheese (Natural, Processed, Specialty):** The primary image should show the color of the cheese to best effect. For cheeses sold in loaves or wheels, one additional image should show the cheese sliced or faced—especially if there are spices, seasonings or veins to reveal. For pre-sliced or shredded cheese, sizing can be important.
- **Butter:** Most butter is mild yellow in color. It is more important to show pack size and packaging in the primary image. Styled shots and serving suggestions are supporting images.
- **Eggs:** Primary image should indicate how eggs are provided (i.e., sold in the shell or further processed, such as premixed liquid eggs in bags/cartons). Hard-boiled eggs may also be peeled and sliced/diced.
- **Fluid Milk:** The most important feature for fluid milk is pack size and container, ranging from half-pints to bulk 5-gallon dispensers.
- **Cultured:** Cottage cheese, sour cream, heavy whipping cream, and half & half are all predominantly white in color. Primary image should feature packaging. Additional images can be plated.
- **Ice Cream:** Show packaging, but remove the lid to reveal the color and texture of the product.

8.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Family



Plated



Styled

9 BEVERAGE

9.1 PRIMARY IMAGES

The primary image for this category is the product in its most manageable form: individual bottles when appropriate; in jugs or cartons for drink mixes and concentrates; small packages for dry mixes, etc. Served in a cup is not appropriate except as a supporting image.

9.2 PRIMARY IMAGE EXAMPLES



9.3 SUBCATEGORIES

- **Coffee (Ground, Whole Bean, Concentrated):** For coffee beans and grounds, show a small quantity spilled on the white surface in front of the container as the primary image.
- **Tea (Bulk, Bags, Premix Concentrates):** The ideal image for this subcategory would be a single, unwrapped tea bag, with individually wrapped bags and boxes included as supporting images. For dried tea leaves shipped in bulk, show a small quantity spilled on the white surface in front of the container.
- **Juice (Dispensed, Mixes, Portion Cups, Bottles):** The primary image should be the smallest individually packaged item.
- **Miscellaneous (Bottled Water, Juice, Cappuccino Mixes):** The primary image should be the smallest individually packaged item.

9.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Family



Plated



Styled

10 DRY GROCERY, SEASONINGS AND INGREDIENTS

10.1 PRIMARY IMAGES

Products in this category are frequently shipped in bulk containers. The ideal “out of the box” view of the product is a small quantity displayed on a white background. Packaging may also be shown behind the sample when the package size is suitably small, but the center of attention should be on the contents.

10.2 PRIMARY IMAGE EXAMPLES



10.3 SUBCATEGORIES

- **Cereals and Grain:** Show a small sample spilled loosely on a white surface in front of the container. Individual grains should be clearly visible when the image is viewed at full resolution.
- **Dry Pasta:** For most uniform varieties of pasta, show a small group of 3–5 good, unbroken pieces, separated so the shape and color are clearly visible. For mixed varieties, ensure that each color and shape is fairly represented in the sample. Long, narrow pasta (e.g., capellini, linguine, spaghetti or vermicelli) can be shown in a thicker sheaf.
- **Sauces:** For the primary image, sauces should be shown poured into a plain white serving bowl. As a supporting image, show the sauce in use as part of a finished dish.
- **Miscellaneous Canned (Entrees, Puddings, etc.):** Show the contents poured into a plain white serving dish or bowl. Supporting images should include a clear view of the packaging.
- **Seasonings:** Show a small quantity of the seasoning spilled on the white surface in front of the container. The sample should be clearly visible when the image is viewed at full resolution.
- **Dry Ingredients:** Show a small quantity of the dried ingredients spilled on the white surface in front of the container. For bulk containers that are too large to fit inside the frame alongside a reasonable sample of the contents, show the container separately as a supporting image.

10.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Family



Plated



Styled

11 DRIED & CANNED FRUITS AND VEGETABLES

11.1 PRIMARY IMAGES

For dried products, a single item or small sample should be shown spilled onto a white surface. For wet, canned goods, the contents should be poured into a plain white serving bowl. The preferred angle of view should be just enough to show the depth and dimension of the bowl while still concentrating attention on its contents.

11.2 PRIMARY IMAGE EXAMPLES



11.3 SUBCATEGORIES

- **Canned Fruits and Vegetables:** Use a plain white serving dish or bowl as required to provide a clear view of the product for the primary image. Supporting images should include the can or other packaging.
- **Dried Fruit (Raisins, Cranberries, etc.):** Show a small quantity spilled onto the white surface in front of the package.
- **Nuts and Seeds:** For uniform products, show a small group of 3–5 whole, unbroken pieces. For mixed varieties, ensure that each type is fairly represented in the sample.

11.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



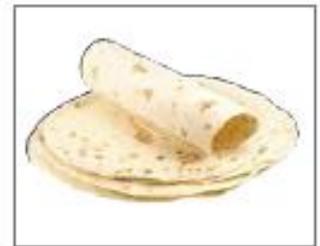
Styled

12 FROZEN AND REFRIGERATED GROCERY

12.1 PRIMARY IMAGES

This is a broad category, and many of the products are shipped in a “close to prepared” state. The ideal image for products in this category would be an individual item or small serving size, removed from its packaging, thawed, and presented in its natural state.

12.2 PRIMARY IMAGE EXAMPLES



12.3 SUBCATEGORIES

- Baked Goods
- Desserts
- Prepared Convenience Foods (Soups, Sauces, Gravies)
- Frozen Pasta
- Breakfast Foods
- Tortillas
- Appetizers

12.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



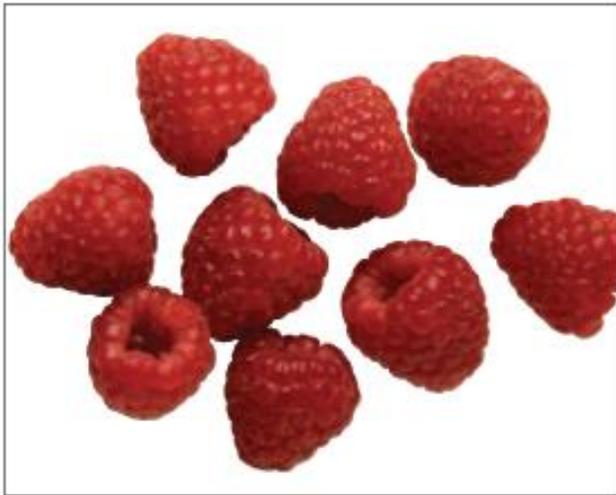
Styled

13 FROZEN FRUITS AND VEGETABLES

13.1 PRIMARY IMAGES

Unlike other product categories, frozen items should not necessarily be thawed in the primary image. When appropriate, these products can be shown frozen to differentiate them from fresh product. Color and size can be critical.

13.2 PRIMARY IMAGE EXAMPLES



13.3 SUBCATEGORIES

- **Fruits:** Individually quick-frozen (IQF) products can be displayed separately or in small groups of like items, depending on typical serving size.
- **Vegetables:** Most products should be shown out of their packaging. If necessary, frozen vegetables may be shown in a plain white bowl—use an angle that shows the depth and dimension of the bowl, but keeps most of the attention on its contents.
- **Potatoes:** Some varieties of pre-cut seasoned or coated potatoes may not be clearly visible unless thawed or even cooked. Use your judgment to provide potential buyers with the best understanding of the product.

13.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Prepared



Plated



Styled

14 SHORTENINGS AND OILS

14.1 PRIMARY IMAGES

Most products in this category may be shown packaged in the primary image. For dry ingredients, a small sample should be spilled onto the surface in the foreground whenever practical.

14.2 PRIMARY IMAGE EXAMPLES



14.3 SUBCATEGORIES

- **Oils and Fats:** A bottle, tub or other package may be used as the primary image in this subcategory. The image should be taken at a slight downward angle to show the dimensions of the container (height, width and depth).

14.4 ADDITIONAL IMAGE EXAMPLES



Family

15 SUPPLIES AND EQUIPMENT

15.1 PRIMARY IMAGES

This is a very large category, with a broad range of products. Make sure that each product is completely visible and clearly identifiable in the primary image.

15.2 PRIMARY IMAGE EXAMPLES



15.3 SUBCATEGORIES

- **Smallwares and Small Equipment:** The primary image should generally show a single item. Supporting images can be used to show smallwares in use, as well as families of complementary products such as matching sets and full table settings.
- **Clothing and Protective:** Items designed to be worn should be laid out clearly for the primary image. Supporting images can be used to show the item worn and/or in use. Certain products may not be clearly recognizable unless they are worn. For those products, the primary image should be framed to show only the relevant product, not the person modeling it.
- **Heavy Equipment:** Large items (e.g., refrigerators and ovens) involve additional challenges for photography. Take care to keep the product completely in frame and in focus. Provide supporting images to show alternate angles, open doors and interior views.

15.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Family



Worn



Used

16 DISPOSABLES

16.1 PRIMARY IMAGES

Whenever practical, small disposable items should be shown as single items “out of the box.” However, some products in this category (e.g., bags, films and foils) are essentially shapeless and therefore difficult to picture except when they are packaged or in use. The primary image for these products should be a sample partially unrolled or withdrawn from its container, while supporting images can show the product in use and/or in combination with other products.

16.2 PRIMARY IMAGE EXAMPLES



16.3 SUBCATEGORIES

- **Paper and Foams:** Primary images should feature a single item ready to be used. Paper and foam to-go boxes should be assembled and positioned at an angle to show all three dimensions (height, width and depth).
- **Plastic:** Remove a single item from the package for the primary image (e.g., a plastic fork). When different items are packed together, one sample of each type should be shown side-by-side in the primary image (e.g., a plastic knife, fork and spoon). Packaging should be shown as a supporting image.
- **Food Storage and Safety:** Plastic films, plastic bags, foil and similar products should be shown with one example partially withdrawn from its container.

16.4 ADDITIONAL IMAGE EXAMPLES



Packaged

Family

Family

Held

Used

17 JANITORIAL AND CHEMICAL

17.1 PRIMARY IMAGES

Products in this category generally fall under the description of “cleaning supplies,” especially chemicals, most of which are best shown in their containers.

17.2 PRIMARY IMAGE EXAMPLES



17.3 SUBCATEGORIES

- **Dispensed:** These products are usually concentrated solids, such as detergents used in laundry or warewashing machines. The ideal primary image would be a single packet.
- **Ancillary:** Cleaning supplies and other chemicals should be shown in their containers (e.g., bottles, cans, pumps, etc.). Show the container at a slight angle to convey dimensions (height, width and depth).

17.4 ADDITIONAL IMAGE EXAMPLES



Packaged



Staged



Held



Used

PART 3: Publishing Images in the GDSN

Part Three of this guide outlines best practices for publishing images from an Information Provider to a Recipient. Topics include:

- Preparing image files for publication
- Populating the publication attributes
- Generating a valid URL for the image link
- Publishing image links in a multi-level product
- Understanding image lifecycle

18 PREPARING IMAGE FILES FOR PUBLICATION

Parts 1 and 2 of this guide explain how to capture and store proper images with proper file naming convention. However, it is important to consider the needs of the recipient when preparing a file for transmission. Many of the recipients will be receiving thousands of images, so it is important to provide an image that recipients can use without overloading their servers or requiring interventions for converting or editing the file.

The recommended file type of full quality **tif** files are excellent inventory for the manufacturer. This rich format enables the creation of any other format or size for downstream purposes. However, full quality **tif** files can be very large (between 40 – 200 MB each), which can be challenging for the recipient to manage and pass between servers depending on the use. By providing the files in a lighter format such as **jpg**, the recipient will have more flexibility in uses within different systems internally. The **jpg** images can easily be created from the master **tif** and still contain the pixel ranges provided in the Image Guidelines. A great analogy is how consumers share music. For inventory purposes, music can be kept at home on a compact disk. However, when sharing or placing on a mobile device, music is typically converted to an mp3 format.

19 POPULATING THE PUBLICATION ATTRIBUTES

There are a variety of attributes that need to be populated in order to effectively send an image to a recipient. The image name is just one component of the data that describes what is being sent and what is being communicated in the XML schema across the GDSN. It is essential that all of these attributes are consistent with each other in the transaction.

The first attribute is the **typeOfInformation** attribute. This field is populated from a standard code list and the most common examples are **PRODUCT_IMAGE** or **OUT_OF_PACKAGE_IMAGE**. Consistency between this attribute and the 19th character in the file name will help to provide additional levels of validation during machine-to-machine connections.

The next attribute is **uniformResourceIdentifier**. This attribute is a string of characters used to identify a name or a resource over a network. For the purpose of this document, that is the URL that should link directly to the image file. Linking directly to an image is very important when establishing machine-to-machine connections. The **uniformResourceIdentifier** URL should only point to one file.

The third attribute is **fileFormatName** in the GDSN Schema. This attribute enables the sender to identify the type of file format in which the image will be sent. For example, if the user is sending a **tif** file, this attribute would be populated with **tif**. Again, it is important to correctly populate this attribute with the type of file being delivered by the URL.

The next attribute is the **filename** attribute within the XML Schema. This is where the sender must specify the image file name. Part I, page 8 of this Guideline goes into great detail explaining how to properly name an image to be synced across the GDSN. It is very important that the **filename** attribute match the actual image file name available in the link exactly.

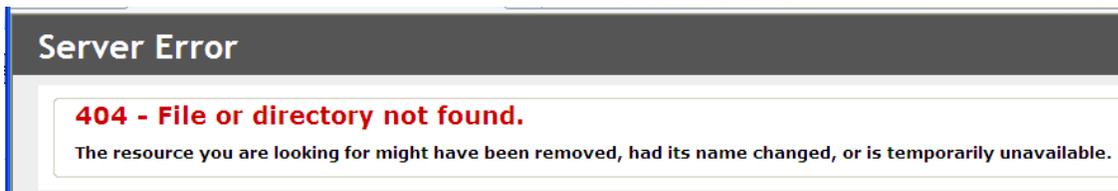
Finally, there is an optional attribute called **fileEffectiveStartDateTime**. While this is an optional attribute, it is highly valuable to a recipient receiving an image. Without this attribute, it is impossible for a recipient to tell if there has been an update to a previously synchronized image.

20 GENERATING A VALID URL FOR THE IMAGE LINK

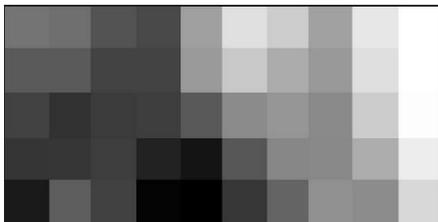
Generating a valid URL is the most critical part for enabling machine-to-machine connections without manual intervention to action the link. This is also the area with the greatest opportunity for improvement. A list of examples is provided below to show some of the more problematic links that have been observed in foodservice.

NOTE: Please follow-up with your trading partner, certified data pool and/or solution provider to confirm a list of error or corrections that need to be addressed.

- Dead links – page won't render



- Image files that are corrupted and cannot be opened
- Image files that can open, but are bad quality (e.g., pixelated blobs)



- Sending the same link for all products in catalog
- Image files that are .pdf, .doc, .ppt, etc., or link to a plain html page
- URLs that go to an html page that requires a login password

Username

Password

Remember my username and password.

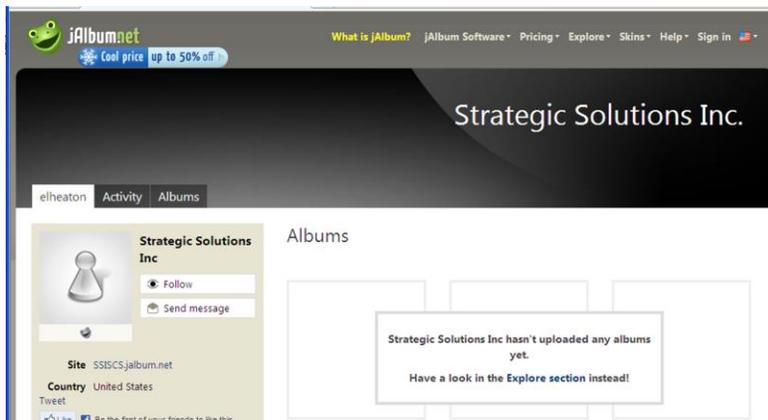
[New user registration](#) | [Forgot your password?](#)

- URLs that route through other code (redirects, etc.) that causes machine-to-machine processing to not work
- URLs that link to an image portal that is built for manual navigation, browsing and downloading
gdsn.companyname.com - /images/

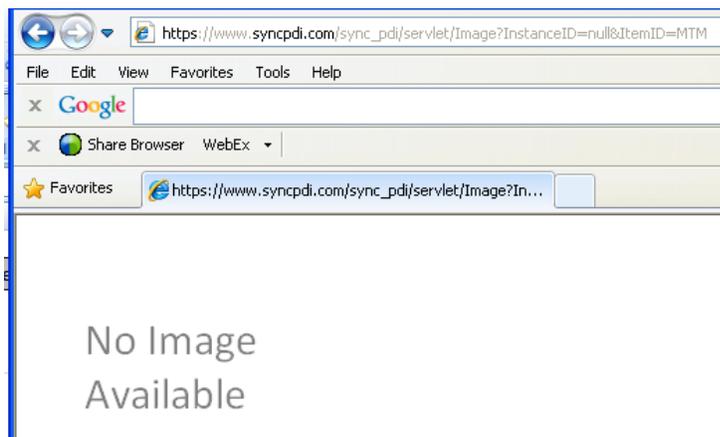
[To Parent Directory]

Monday, December 24, 2012 12:38 PM 1132101 00070919010030_A1RB_EN1235.jpg
 Monday, December 24, 2012 12:38 PM 1109563 00070919010040_A1RB_EN1235.jpg
 Monday, December 24, 2012 12:38 PM 1120200 00070919010090_A1RB_EN1235.jpg
 etc.

- URLs that link to a manual navigation page that has no images available



- URLs that link to a webpage that displays the image as part of the page background
- URLs that, when connected, don't pass back a valid file size (e.g., "-1" instead of actual size, which means unlimited. Bad/unsecure protocol)
- XML segment describes filename and extension, but the URL goes to a .bmp that is an image of "No Image Available"



- Downloaded filename is different than the XML fileName
- URL which renders a page with multiple image files

21 PUBLISHING IMAGE LINKS IN A MULTI-LEVEL PRODUCT

Currently, there is some inconsistency in terms of what levels image links are attached to, as well as some repetition across levels.

Best practice guidance:

- Do not publish the same links at multiple levels. It creates extra processing and results in duplicate images being stored.
- Preference Images should be provided at the specific hierarchy level of their relevance. For example, an image of an “each level” package should be published at the “each level,” not at the “case level.” If the appropriate level does not have an assigned GTIN, the image should be placed at the next higher level GTIN.
- Otherwise, publish image links at any or multiple levels (but without duplicates).
- Currently, a review is underway for variety packs where the level contains multiple, unassigned GTINs.

22 UNDERSTANDING IMAGE LIFECYCLE

The current GDSN XML schema provides attributes to identify the image lifecycle. It is recommended that the attribute **fileEffectiveStartDateTime** be populated to enable recipients to understand when an image is valid and when an image is updated. Without this attribute, recipients can only assume that an image is valid forever. If the source removes or updates an image, the recipient will never know unless the date attributes are populated.

- **Scenario 1:** An image (i.e., “Image1”) currently exists, and it is going to be replaced with an updated image (i.e., “Image2”).
 - Reload the image and change the **fileEffectiveStartDateTime** to the new date. When changing the date, the data pool and recipients would be notified of the new image and would need to download and replace the old image (i.e., “Image1”) on their systems.
- **Scenario 2:** “Image1” currently exists. “Image2” is going to be added as an additional image, but contains the same file name.
 - Load “Image2” as a separate set of image attributes. The data pool and recipients would notice the change and download “Image2” as an additional image.
- **Scenario 3:** Removal of “Image1” without a replacement image.
 - There is currently a review underway for the removal of a current image without the use of a replacement image.

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THE GLOBAL LANGUAGE
OF BUSINESS

CORPORATE HEADQUARTERS
Princeton Pike Corporate Center
1009 Lenox Drive, Suite 202, Lawrenceville, NJ 08648 USA
T +1 937.435.3870 E info@gs1us.org W www.gs1us.org

FOLLOW US:



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