APPAREL AND GENERAL MERCHANDISE

Best Practice Guideline for General Merchandise Product Image Exchange between Trading Partners

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DEVELOPED BY THE PRODUCT IMAGES COMMITTEE OF THE GS1 US APPAREL AND GENERAL MERCHANDISE INITIATIVE

GS1 US

THE GLOBAL LANGUAGE OF BUSINESS

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1 Introduction

1.1 Overview

Images have always been widely used in business. With the growth of internet marketing and sales, this usage has increased dramatically. The management and exchange of images has always been a source of frustration. Without a standard image format, the sharing of imagefiles between trading partners has been difficult and inefficient. Additionally Retailers are investing a lot of money in taking photos of product that their suppliers have already photographed.

The purpose of this document is to develop a standard method for companies to use to create, name, associate data, and transport images to their trading partners. These standard business processes are needed to increase efficiencies and minimize costs related to image exchange. The harmonization of required data and exchange practices reduces the individual mapping from multiple sources to a single process, thus avoiding errors and duplication. The image naming - utilizing a global standardized convention - allows for a higher level of security against inadvertent over-writing.

1.2 Objective

To identify, develop and document standardized methods to name, identify, manage, locate and acquire images for the Apparel and Footwear industries. Identify and standardize the extended attributes associated with the Images needed for image business functions.

1.3 Scope

The Scope of the initiative has been defined as follows:

- The current scope focuses on image specifications for internet/e-Commerce applications within Apparel, Footwear and General Merchandise categories.
- The Scope will be expanded later to include other image applications such as Advertising and Shelf-space planning (Planogram)

1.4 Audience

This document is designed to be used by both suppliers and retailers; as well as establishes a framework for third party providers that may service either trading partner.

This guideline is an expansion to the existing GS1 Product Image Specification standards, referencing the technical requirements and base rules governing the size; shape and graphic components, while adding an additional application level for images intended for eCommerce/internet use.

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1.5 Benefits

By following these image guidelines:

- Suppliers can create a single set of images to be used by all of their trading partners
- Retailers can rely on the image quality, size, shape etc. so that more images can be used from the supplier
- Suppliers can indicate the level the image should be applied to; i.e. to all SKUs within a style, style/color or GTIN (Global Trade Item Number)
- Allows images to be named uniquely by the supplier thus preventing overlays of images by the retailer
- Suppliers can indicate the image location as a URL for retrieval by the retailer

2 General Image Specifications

2.1 File Format

The delivery image shall be a JPG (jpg/jpeg = Joint Photographic Expert Group) format with a level 10 compression. Technically, there is no difference between JPG and JPEG. In a system sense, certain operating systems are incapable of accepting a 4 character suffix, and thus the two forms co-exist.

An alternate file format is PNG (Portable Network Graphics) without compression.

JPG is preferred where possible due to transport weight.

2.2 Color Mode

The Color Mode RGB (Red Green Blue; optimized for monitors and viewing systems) and is set at 8 bits per channel.

2.3 Up-Sizing / Interpolation

- No alpha channel 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.

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- No evidence of dust or scratches.
- No manufactured shadows.
- Moire Patterns shall be minimized.

2.4 White Balance

No color casts. Color should be as rich, vibrant and eye-catching as possible.

Color shall be balanced over-all and not “blown-out” in highlights. Flesh tones and grass should be realistic and lifelike. Reflections should also be realistic. (These requirements may be image state/style dependent.)

Shadows shall be realistic and neutral.

Retouching shall be as seamless and undetectable as possible and be convincing at a minimum of 200% magnification (i.e. removal of expiration/best before dates).

Colors shall match to product Pantone Matching System (PMS) colors (list to be provided by designer). Pantone is a set of standard colors for printing, each of which is specified by a single number.

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.

2.5 Background

All backgrounds must be knocked out to white (RGB 255/255/255).

All images, regardless of color, must have a close cropped path defined. This path is a graphic tool which allows for the application of a varied background to better showcase the item imaged.

2.6 Clipping paths

All images shall contain a clipping path in order for the product to be silhouetted and/or have proprietary backgrounds applied.

> **Definition:** A *clipping path* is a hard-edged mask that hides unwanted image elements. Clipping paths are typically used to hide the background of an image or may be used to shape an image into non-rectangular shapes, making the masked portions transparent. Clipping paths can be created in graphics programs then exported with an image as an embedded path or alpha channel or they can be drawn directly in some page layout applications.

To facilitate batch automation, it is very important that the clipping path be named **“Path 1**”.

Default flatness setting shall be 1-device pixels.

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2.7 Image Size

The minimum image size shall be 2400 x 2400 pixels and the maximum size shall be 4800 x 4800 pixels. The image should be square – not rectangle.

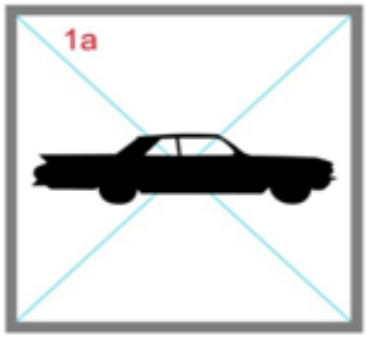
Resolution: The file resolution shall be set at 300 ppi.(pixels per inch)

Image Positioning: The center of the item shall be centered in the image frame with a maximum of 5% whitespace permitted on either end of the largest image axis (total of 10%).

2.8 Image Examples

2.8.1 IMAGING SERIES 1

Image series 1 demonstrates the centering requirement. Image 1a is correctly centered both vertically and horizontally in the image frame, while Image 1b is centered horizontally but not vertically. Image 1a is correct.



CORRECTLY CENTERED

INCORRECTLY CENTERED

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2.8.2 IMAGING SERIES 2

Image series 2 demonstrates the maximum whitespace border. Image 2a shows the correct amount of whitespace top and bottom (relative to the image primary axis), while image 2b exceeds the maximum allowable border. Image 2a is correct.

3 File Naming

A non-intelligent unique naming convention is recommended which identifies who the image is from, the type of image, and provides a unique reference to link additional information/content within a data system.

The GS1 GDTI (Global Document Type Identifier) was selected as the naming process to be utilized.

> **Note:** Identifying that the best course of action is a unique; non-intelligent naming structure does not mean that a structured format is not allowed, it is merely allowing the suppliers a margin of flexibility with regards to the naming structure to better integrate with a system they may currently be employing.
>
> **Warning:** Ensure you verify with your operating systems and your EDI character restrictions when naming your image file. It is recommended that you use only alphanumeric characters. See Appendix 5.3 - FAQ 7 and 7a.

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3.1 Uniqueness

A globally unique naming structure shall be implemented to ensure cross functionality within an organization's document management system. This will also increase the level of stability within an image collection point. Points that should be considered are the following:

- Does the naming structure allow for multiple images of the same base elements without impacting current or future image storage practices?
- Will the naming structure work with existing systems?

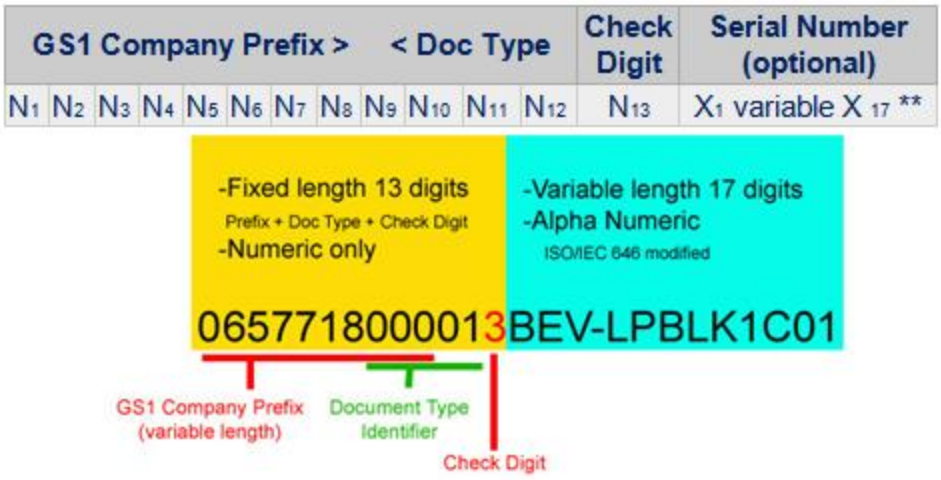
3.2 Non-Intelligent Structure

With a non-intelligent naming structure, there will be less chance of improper naming practices, and a smaller time gap for standard integration.

3.3 GDTI Naming

The GDTI is the Identification Key comprised of the GS1 Company Prefix, an owner attributed document type identifier number and check digit (MOD 10) combined with a 1 to 17 character alpha/numeric serial component. This can be used to access database information if required for document control purposes. The GDTI is assigned for the life time of the document type and may be bar coded using Application Identifier (253).

The GDTI is constructed as:



The GDTI is composed of a GS1 Company Prefix, a document type, a check digit and a 1 to 17 alpha/numeric serial number.

At its simplest, the document type represents a set of documents with similar attributes and the document type together with the serial number represents an instance of a document with those attributes.

The first 12 digits of the GDTI are assigned in exactly the same way as for the GTIN (Global Trade Item Number) or the GLN (Global Location Number): the company prefix and a document reference are

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concatenated to make a 12-digit number. Apart from the basic format, there is absolutely no correlation between the GDTI and any other GS1 identification key.

Note: North American prefixes used to create codes for use with the UPC symbology have an implied lead zero. It is important to include this in the creation of the GDTI structure.

Example:

Refer to the Appendix for image naming examples.

4 Meta-Data

This section will review specific data components related to a product image. The data may be conveyed between parties using any agreed-upon methods, including paper (such as by a spreadsheet) or electronically (such as by Electronic Data Interchange, eXtensible Mark-up Language, etc.). Refer to the separate spreadsheets for additional implementation guidance and X12 EDI mapping guidance for the 832 Price/Sales Catalog transaction set.

4.1 Mandatory Image Attributes

4.1.1 SUPPLIER IDENTIFIER / NUMBER

Definition: BCT ID (UPC Catalog Number), EDI Sender ID, Global Location Number or proprietary identifier used to identify the supplier.

Implementation Guidance:

- Mandatory
- Alphanumeric field
- Maximum of 15 characters

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4.1.2 IMAGE PRODUCT IDENTIFIER

Definition: Attribute(s) that provides the product identification

Implementation Guidance:

- Mandatory
- Style
- Style + Color Description + Color Code
- Style + Color Description + Color Code + Size Description + Size Code
- GTIN (Global Trade Item Number)

4.1.3 IMAGE MEDIA TYPE/FORM FUNCTION/FACING/FILE TYPE

Definition: Basic descriptive information about the image

Implementation Guidance: Mandatory. 4-part component data element, comprised of the following:

PART	VALUES
PART 1 – MULTI-MEDIA OBJECT TYPE	• SI (Still Image)
PART 2 – IMAGE FORM/FUNCTION	• INT (Internet)
PART 3 – IMAGE FACING	• PRI - Primary • VF1 - Front • VIK - Back • VIS - Side • SDL - Side Left • SDR - Side Right • VIB - Bottom • VIT - Top
PART 4 – IMAGE FILE TYPE	• JPG

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4.1.4 IMAGE APPLICATION LEVEL INDICATOR

Definition: Information indicating the level to which the image is applicable

Implementation Guidance:

- Mandatory
- Valid options are -
  - Image applies to Style Level – Use 'PID'
  - Image applies to Style/Color Level – Use 'CLR'
  - Image applies to the GTIN Level – Use 'UPC' (image at size level)

4.1.5 IMAGE LOCATION TYPE

Implementation Guidance:

- Mandatory
- Valid options are -
  - URL – Indicates the Image will be retrieved via an URL (ie: http:// https://)
  - FTP – Indicates the Image will be retrieved via FTP (ie: ftp:// sftp:// ftps://)
  - LMI - Local Media Identifier (such as CD, DVD, or other portable storage device) with the directory path

4.1.6 IMAGE LOCATION IDENTIFIER

Definition: Identifies the location source for the image

Implementation Guidance:

- Mandatory
- Valid options are -
  - URL Image Location including the URL prefix (examples : http:// https://)
  - FTP Pull Location including the FTP prefix (examples: ftp:// sftp:// ftps://)
  - Directory Path on the local media

4.1.7 IMAGE FILE NAME

Definition: Unique image file name

Implementation Guidance:

- Mandatory
- Use the GDTI file naming convention (Appendix 5.1)

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4.2 Optional Image Attributes

4.2.1 SUPPLIER NAME

Definition: Name of the supplier

Implementation Guidance:

- Optional
- Alphanumeric field
- Maximum of 30 characters

4.2.2 SHORT PRODUCT MARKETING MESSAGE

Definition: Free-form text that provides marketing-related feature and function information about the product.

Example: ‘These are the best cargo pants ever!!’

Implementation Guidance:

- Optional
- Alphanumeric field
- Maximum of 4,096 characters

4.2.3 LONG PRODUCT MARKETING MESSAGE

Definition: Free-form text that provides marketing-related feature and function information about the product.

Example: ‘Bright shiny sterling silver ring with a ridiculously large deep purple amethyst.’

Implementation Guidance:

- Optional
- Alphanumeric field
- Maximum of 8,192 characters

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4.2.4 MERCHANDISE CLASSIFICATION

Definition: Product classification.

Example: Footwear

Implementation Guidance:

- Optional
- Alphanumeric field
- Maximum of 80 characters

4.2.5 IMAGE COMPRESSED FILE SIZE

Definition: The number of bytes of compressed file size

Implementation Guidance:

- Optional
- Provide the byte value

4.2.6 IMAGE RESOLUTION

Definition: Image pixels per inch (ppi).

Implementation Guidance:

- Optional
- Values are 300 ppi

4.2.7 IMAGE ANGLE OF ROTATION AND PLUNGE

Definition: Describes the image view of the product

Implementation Guidance:

- Optional
- Values are:
  - 1 - Center - No Plunge Angle
  - 2 - Left – No Plunge Angle
  - 3 - Right – No Plunge Angle
  - 7 - Center – Plunge Angle Present
  - 8 - Left – Plunge Angle Present
  - 9 - Right – Plunge Angle Present

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4.2.8 HORIZONTAL PIXELS

Definition: Horizontal pixel count of the image

Implementation Guidance:

- Optional
- Provide the numeric horizontal pixel count of the image.
- Values are:
  - Minimum 2400
  - Maximum 4800

4.2.9 VERTICAL PIXELS

Definition: Vertical pixel count of the image

Implementation Guidance:

- Optional
- Provide the numeric vertical pixel count of the image.
- Values are:
  - Minimum 2400
  - Maximum 4800

4.2.10 IMAGE DESCRIPTION

Definition: Free-form text describing the image

Example: Vertical front view of cargo pants.

Implementation Guidance:

- Optional
- Alphanumeric field
- Maximum of 1000 characters

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4.2.11 IMAGE TYPE

Definition: Indicator that the image is either an actual product image or a color swatch

Implementation Guidance:

- Optional
- Values are:
  - PRO – Product
  - CSW – Color Swatch

4.2.12 IMAGE CLIPPING PATH

Definition: A form of masking or stencilling where you can draw an outline around your image where you want it to be visible, the remaining areas become transparent

Implementation Guidance:

- Optional
- Values - Path 1

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5 Appendices

5.1 Image Naming Examples

The following image naming examples are based on the utilization of the GDTI naming format. These examples show a serialized non-intelligent format and a system with a built-in intelligence as well as. Adherents to this standard are not bound to follow these examples for image naming, but must follow the principles of the GDTI construction (including uniqueness of name) to ensure compatibility within the sector and their trade partners.

5.1.1 EXAMPLE 1: GDTI - NON-INTELLIGENT NAMING CONVENTION

This is an example of how you could use the GDTI standard – using your UCC prefix, a serialize document type, check digit and any file name you wish to use with no intelligence in the name.

Company Prefix **0657718000091CAMMY-NAT3-PRI.jpg**

The Company Prefix is attributed to the supplier by the GS1 MO (Member Organization). Due to the variable nature of the prefix, only the last two user-defined digits will be itemized to enable implementation by all participants. (**Note:** North American prefixes have an unmarked lead zero which must be included in the data structure.)

Document Type Identifier **0657718000091CAMMY-NAT3-PRI .jpg**

The document type identifier is selected by the prefix owner and is used to specify a purpose or function.

Check Digit **06577180000091CAMMY-NAT3-PRI .jpg**

This is a calculated digit, using the preceding 12 digits. Its creation is similar to that of a check digit for a GTIN12/13 (GTIN or EAN code).

Serialized portion of the GDTI **0657718000091 CAMMY-NAT3-PRI .jpg**

Note: Up to 17 characters allowed for unique identification.

Serialized Identifier (optional) **0657718000091 CAMMY-NAT3-PRI .jpg**

Note: Could be used to indicate facing.

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5.1.2 EXAMPLE 2: GDTI – VENDOR DEFINED INTELLIGENT NAMING CONVENTION

This is an example of how you could use the GDTI standard – using your GS1 company prefix, the document type to indicate facing and angle, check digit, and your style number for a more intelligent naming convention for internal use.

Company Prefix 0657718000121CAMMY-NAT3.jpg

The Company Prefix is attributed to the supplier by the GS1 MO (Member Organization). Due to the variable nature of the prefix, only the last two user-defined digits will be itemized to enable implementation by all participants. (**Note:** North American prefixes have an unmarked lead zero which must be included in the data structure.)

Filler Digits 0657718000121CAMMY-NAT3.jpg

Filler digits are used in this example to ensure that a full thirteen digits are encoded in the fixed portion of the GDTI.

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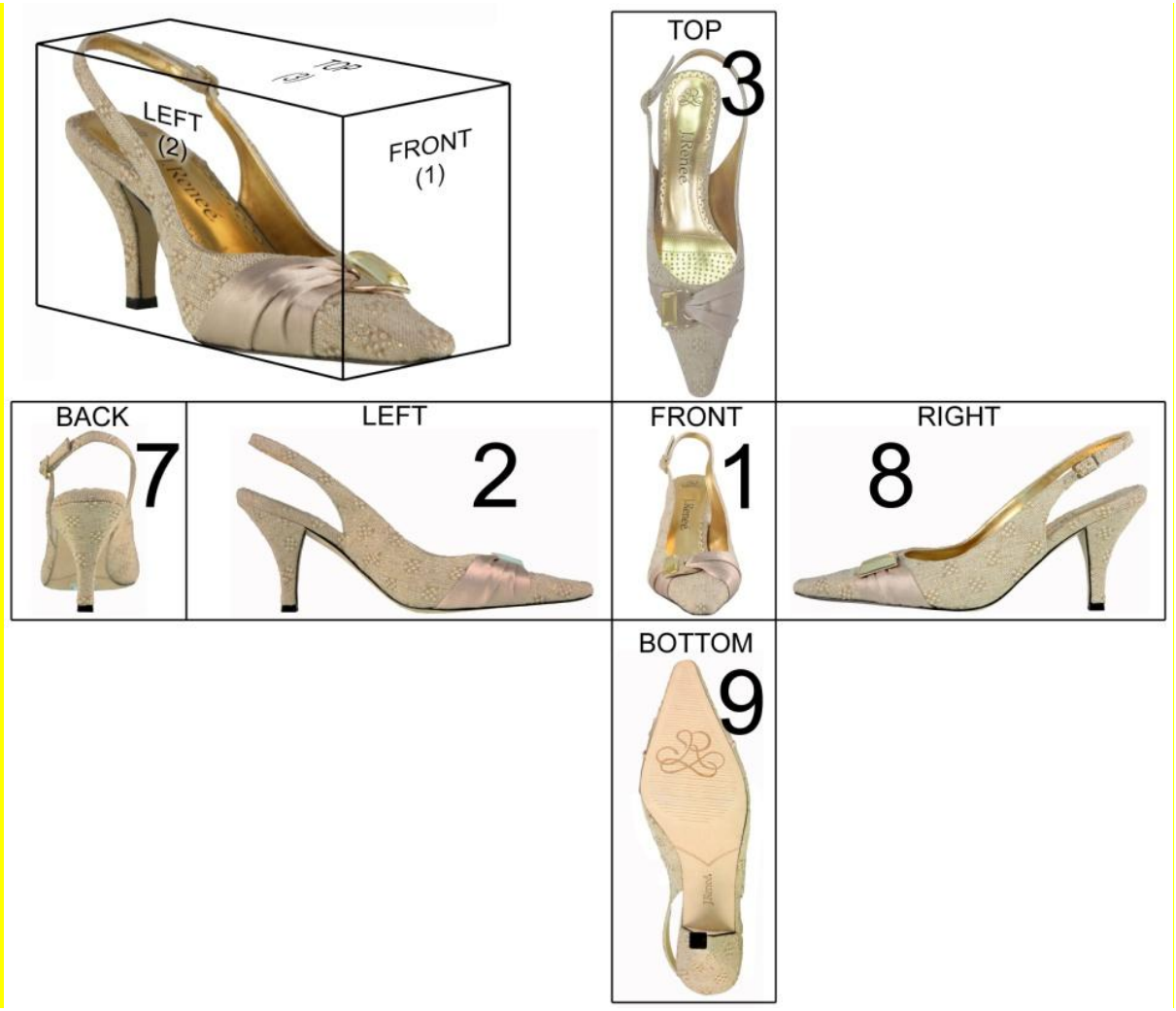
GS1 Facing Indicator 0657718000121CAMMY-NAT3.jpg

A GS1 planogram facing example is given for the manual identification of the image. These facings correlate to the VICS facings (Section 5.1.14.1) and can be used in the file naming if you wish to indicate facing in the GDTI format.

- 1 Front
- 2 Left
- 3 Top
- 7 Back
- 8 Right
- 9 Bottom



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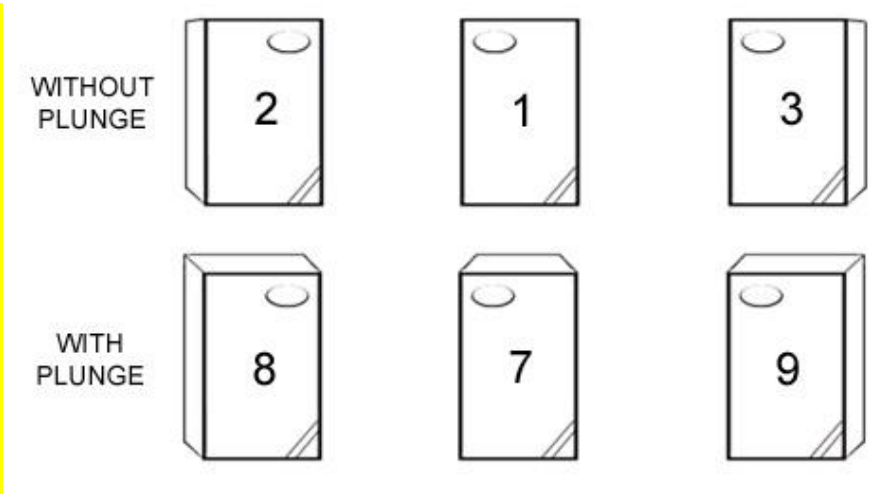
Angle Identifier 0657718000121CAMMY-NAT3.jpg

Angle reference relative to the face being represented.

- 1 Center; no plunge angle
- 2 Left; no plunge angle
- 3 Right; no plunge angle
- 7 Center; plunge angle present
- 8 Left; plunge angle present
- 9 Right; plunge angle present



Check Digit 0657718000121CAMMY-NAT3.jpg

This is a calculated digit, using the preceding 12 digits. Its creation is similar to that of a check digit for a GTIN12/13 (GTIN or EAN code).

Internal Style / Color Identifiers 0657718000121CAMMY-NAT3.jpg
(Serialized portion of the GDTI)

This functionality is freeform, an example of the internal naming structure is shown for identification based on a supplier naming practice.

Serialized Identifier (optional) 0657718000121CAMMY-NAT3.jpg

00-ZZ (Numeric/alpha-numeric/alpha). This gives a possible 1296 combinations when using only uppercase alpha component.

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5.2 Supporting Documentation

The following documents were developed to assist you in implementing product image data exchange. These documents are available *separately* from this guideline.

5.2.1 PILOT PROGRAM

The following documents were developed to assist in piloting by trading partners of the Image Guidelines.

- **Images Committee Pilot Template**
  - This is a spreadsheet document that may be used to test and confirm the data that is conveyed between the trading partners. The spreadsheet lists the image-related data and provides an example of its usage.
  - The pilot template can be found on the Product Images and Attributes Workgroup page.
- **Sample Template – CSV**
  - This document illustrates the image data in a format that may be used to create a comma-delimited file for loading to a database.
  - The CSV sample template can be found on the Product Images and Attributes Workgroup page.

5.2.2 EDI 832 PRICE/SALES CATALOG TRANSACTION SET

The following documents were developed to provide guidance for implementing the Image Data Guidelines in the EDI 832 Price/Sales Catalog transaction set. This is applicable in Version 4020VICS and higher.

- **Images Committee: Image Attributes and 832 Mappings**
  - This document is comprised of 3 sections:
    - A high-level overview of imaging and its enablement within the 832 Price/Sales Catalog transaction set.
    - A detailed review of the data elements that are used, and their placement within the 832 EDI Price/Sales Catalog transaction set.
    - A set of business scenarios illustrating the use of mandatory data only or mandatory and optional data elements for image conveyance.
  - These documents can be found on the Product Images and Attributes Workgroup page.

5.2.3 OTHER SUPPORTING DOCUMENTATION

These documents denote proposed changes to the VICS EDI guidelines in support of the Imaging Guideline.

- **VICS 832 Change Requests**
  - This document denotes changes to the VICS 832 Price/Sales Catalog guideline.
  - This document can be found in the GS1 US Community Room.

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- **VICS EDI Guideline, Section III, Data Element 1271**
  - This document denotes changes to data element 1271 Multi-Media Object Codes.
  - This document can be found in the GS1 US Community Room.
- **VICS TIIC Guideline Changes**
  - This document denotes changes to Section 10.3.
  - This document can be found in the GS1 US Community Room.

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5.3 Frequently Asked Questions

1. How do these guidelines relate to the current GS1 image specifications?

These guidelines are an expansion to the existing GS1 Product Image Specification standards, referencing the technical requirements and base rules governing the size; shape and graphic components, while adding an additional application level for images intended for eCommerce/internet use.

2. Are these guidelines compatible with GDSN?

This guideline is being submitted for inclusion within the Global Data Synchronization Network.

3. How is a white image with white background defined?

All images, regardless of color, must have a close cropped path defined. This path is a graphic tool which allows for the application of a varied background to better showcase the item imaged.

4. Are thumbnail images defined in the guideline?

Thumbnail images were deemed out-of-scope for this initiative. It was reasoned that a larger image could be reduced to a thumbnail if one was required by the end user based on their particular requirements.

5. What is the difference between JPEG and JPG?

Technically, there is no difference between JPG and JPEG. In a system sense, certain operating systems are incapable of accepting a 4 character suffix, and thus the two forms co-exist.

jpg /jpeg = Joint Photographic Expert Group

6. What is the Pantone Matching System (PMS)?

A set of standard colors for printing, each of which is specified by a single number.

Pantone Matching System Chart

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7. Invalid characters in name of image?

System requirements have file name restrictions with regards to special characters being used in the file name. **See 7a below for EDI character restrictions in image file naming.**

Following is a list of invalid characters and should not be used in the image file name:

CHARACTER	NAME	REASON
/	slash	used as a path name component separator in Unix-like, Windows, and Amiga systems. (The MS-DOS command.com shell would consume it as a switch character, but Windows itself always accepts it as a separator.[4][vague])
\	backslash	also used as a path name component separator in MS-DOS, OS/2 and Windows (where there are few differences between slash and backslash); allowed in Unix filenames, see Note 1.
?	question mark	used as a wildcard in Unix, Windows and AmigaOS; marks a single character. Allowed in Unix filenames, see Note 1.
%	percent	used as a wildcard in RT-11; marks a single character.
*	asterisk or star	used as a wildcard in Unix, MS-DOS, RT-11, VMS and Windows. Marks any sequence of characters (Unix, Windows, later versions of MS-DOS) or any sequence of characters in either the basename or extension (thus "*.*" in early versions of MS-DOS means "all files". Allowed in Unix filenames, see note 1
:	colon	used to determine the mount point / drive on Windows; used to determine the virtual device or physical device such as a drive on AmigaOS, RT-11 and VMS; used as a pathname separator in classic Mac OS. Doubled after a name on VMS, indicates the DECnet nodename (equivalent to a NetBIOS (Windows networking) hostname preceded by "\\".)
|	vertical bar or pipe	designates software pipelining in Unix and Windows; allowed in Unix filenames.
"	quote	used to mark beginning and end of filenames containing spaces in Windows, see Note 1.
<	less than	used to redirect input, allowed in Unix filenames, see Note 1.
<	less than	used to redirect input, allowed in Unix filenames, see Note 1.
>	greater than	used to redirect output, allowed in Unix filenames, see Note 1.
.	period or dot	allowed but the last occurrence will be interpreted to be the extension separator in VMS, MS-DOS and Windows. In other Operating Systems, usually considered as part of the filename, and more than one period (full stop) may be allowed.

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7a. EDI Character Restrictions:

Since the image file name will be carried within an EDI file, special care must be taken to ensure that the filename does not conflict with (1) X12 character set standards, (2) X12 delimiter standards, and (3) transmission protocol standards.

It is recommended to only use alpha numeric characters in the image file name.

Data carried within an X12 EDI file may only contain characters approved for use by the X12 Standards. X12 character sets include the 'Basic' Character Set and the 'Extended' Character Set, which includes uppercase and lowercase letters, digits, special characters, national characters, and select language characters. Refer to the X12.6 Application Control Structure Standard for information on the Character Sets.

X12.5 Interchange Control Structures Standard - Appendix A, covers implementation considerations regarding character sets used in the interchange of the transaction sets with particular emphasis on the delimiters. Delimiters within the X12 Standard include the Segment Terminator, Data Element Separator, Subelement Separator and Repetition Separator.

Common delimiter characters include the asterisk (*), backslash (\), tilde (~) and carat (^). Due to the function of a delimiter character, it must not appear anywhere within the 'value' string of a data element as in the Image File Name.

Additionally, because of the potential conflicts with either the data elements or with special uses in transmission and device control, the selection of delimiter characters must be done with caution. X12 has a set of recommended delimiter values in X12.5.

8. How do you name an oblique image? (This is the most common image used.) Is it possible to use the perfect 45 degree angle shot (to see multiple face of image) as the standard shot?

There is a standard or 'primary' shot used in most depictions of a product type (shoes; jewelry; clothing). A new data identifier has been created to identify this image. In terms of the naming structure, it need only be uniquely named and properly linked to the corresponding data.

9. Are there optional product classifications?

Determining product classification guidelines are outside of this committee's scope.

10. Do we standardize using the "right" shoe, glove, etc.?

When showing six sides of a shoe or glove, the right one is considered the default, as per the industry standard.

11. How are Copyright, Image Time Limit and Model Usage Fees addressed in the guideline?

These types of agreements are not addressed in the guideline. They are considered proprietary and addressed between trading partners.

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5.4 Value Proposition

Understanding the Benefits of Implementing the GS1 US Best Practice Guideline for Internet Product Images

Background

The GS1 US Best Practice Specification for Internet Product Images has been developed by suppliers and retailers to simplify and reduce the cost and effort of current business practices. Both vendors and retailers stand to benefit from the adoption of a common internet image and file naming specification. These benefits are captured in the table below.

PROCESS IMPROVEMENT – VENDOR VIEW	
Case 1. Where the vendor is fully responsible for image production and distribution, a common image specification reduces the effort and cost necessary to maintain multiple (proprietary) customer requirements.	**Case 2.** Where the retailer has been responsible for generating product images, the vendor has an opportunity to cost-effectively assume this function.

The savings are proportional to the number of retailers adopting the specification.
 	
Tangible savings
• Elimination of incremental image production costs:
  ○ Facilities
  ○ Labor (image capture, adjustment/generation, validation)
  ○ Storage
 	
Intangible savings:
• Reduced delays resulting from the need for custom photography. Faster introduction of new products
• Increased image quality/consistency across customer base
• Reduced staff time and effort managing individual retailer requirements
Standard filename convention improves identification of image to supplier and to individual images (reduces risk of posting the wrong image)
	The savings are proportional to the number of retailers who discontinue the practice of producing their own images
	
	Intangible savings
	• Eliminates the need to manage distribution of product samples across multiple retailers
	• Reduced delays resulting from the need for samples and custom photography. Faster introduction of new products
	• Increased image quality/consistency across customer base

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PROCESS IMPROVEMENT – RETAILER VIEW

Case 1. Where the vendor is responsible for image production and distribution, a common specification improves the acquisition of product images across the entire supplier base.	**Case 2.** Where the retailer is responsible for image production, a common specification provides the opportunity for a greater number of vendors to assume this function.

The savings are proportional to the number of vendors who successfully adopt the best practice specification.
 	
Tangible savings
• Fewer errors and quality issues requiring the retailer to re-shoot the image. Elimination of retailer's image production costs.
  ○ Facilities
  ○ Labor (image capture, adjustment/generation, validation)
 	
Intangible savings
• Reduced delays resulting from the need for custom photography. Faster introduction of new products
• Improved consistency of image quality across vendor base
Standard filename convention improves identification of image to vendor and to individual images (reduces risk of posting the wrong image)
	The savings are proportional to the number of vendors who can successfully provide images to the best practice specification.
	
	Tangible savings
	• Elimination of image production costs
	  ○ Facilities
	  ○ Labor (image capture, adjustment/generation, validation)
	
	Intangible savings
	• Reduced delays resulting from the need for samples from vendors or from stock. Reduced delays resulting from the retailer to create necessary photography. Faster introduction of new products.

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5.5 Acknowledgments

Company / Organization

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Target

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