Guidelines for Shipping Container Labeling

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INTRODUCTION

The DEIG Guidelines for Shipping Container Labeling (“DEIG Guidelines”) have been developed and revised through the work of the Book Industry Study Group’s Distribution Executives Interest Group (DEIG).

The DEIG Guidelines represent the Book Industry Study Group’s best practices recommendations for the creation and placement of Shipping Labels, Product Labels and Carton Marking. By adhering to the recommendations in these guidelines the book industry will simplify the capturing of data at all stages of shipping, warehousing and receiving physical product between publishers, distributors and booksellers.

The DEIG Guidelines also serve to align the book industry with global trade generally.

The DEIG Guidelines conform to ANSI/UCC-6: Application Standard for Shipping Container Codes published by GS1 US and are to be used as a basis for more specific agreements on shipping container labeling between trading partners. To purchase the ANSI/UCC-6: Application Standard for Shipping Container Codes visit [http://productcatalog.gs1us.org/](http://productcatalog.gs1us.org/).

It is expected that the DEIG Guidelines will be revised and updated as new standards are developed both within and outside of the book industry and to keep up with emerging technologies. Users of these guidelines are encouraged to provide feedback so that future updates can benefit from user experience.

Compliance and Definition of Terms

Compliance with all standards developed by the Book Industry Study Group is voluntary and subject to agreement between participating trading partners.

The following terms are used throughout this document only in relation to compliance with the DEIG Guidelines. There is no intent to dictate or otherwise affect terms of trade between trading partners.

**Must** – Statements using the word “must” describe conditions that must be present for an action or practice to be in compliance with the DEIG Guidelines.

**Should** – Statements using the word “should” describe conditions that are recommended as good practice in the spirit of the DEIG Guidelines.

**May** – Statements using the word “may” describe options available within the DEIG Guidelines.
SHIPPING LABEL

The Shipping Label contains information relevant to a specific shipment. BISG has adopted the most current standards of the GS1-128 label format as the basis for shipping label standards in the book industry. Updates to the DEIG Guidelines will be considered as changes are made to the GS1 standards.

Shipping Label Layout

The layout of the GS1-128 label consists of different zones, each a separate building block. The size of the zones, with the exception of certain zones that have mandatory dimensions, can be adjusted to accommodate varying amounts of information. Even when zones are resized, however, the placement of information must remain consistent relative to the information in other zones. In other words, there is flexibility in placing the information within zones, but the sequence of zones must be preserved.

Shipping Label Size

Zone Height – Each zone must measure 1.0" in height ± 0.2". However, a zone may be doubled in height to accommodate additional information. The height of the double-high zone is 2.0" in height ± 0.4". Please note that Zone H when present must always be 2.0" ± 0.4" to accommodate the SSCC-18 bar code.

Zone Width – The width of the zones is determined by the width of the label. In some cases, the label width can be divided to accommodate two zones side by side.

Label Height – The recommended minimum label height is 6.0". The height of the label can be taller if necessary to accommodate additional information. However, the sequence of zones must be preserved and the placement guidelines described below must be observed.

Label Width – The recommended minimum label width is 4.0". The label may be wider if necessary to accommodate additional information.

Examples:
The layouts shown in Appendix A are examples compliant with the DEIG Guidelines; they are not industry standards as such.

Figure A-1 shows a sample of the zone layout of a 4.0" x 6.0" GS1-128 label with all fields being utilized and with Zones A through H at a 1.0" height and Zone I at its mandatory 2.0" height.

Figure A-2 shows a sample of the zone layout of a 4.0" x 7.0" GS1-128 label again where Zones A through H are 1.0" in height, Zone I is at 2.0" in height and where Zones E and F are expanded to the full width of the label causing the label size to change to 7.0". Examples of Common Carrier (Truckload/LTL), “mark-for” and small parcel labels also appear in Appendix A.
Table D-1 in Appendix D defines the uses, sizes and mandatory or minimum requirements for the different zones on the shipping label. Whenever information located in Zones E through I on the shipping label is to be bar coded, it must be based on Code GS1-128 symbology. Symbology in Zones C and D must meet carrier requirements. Where there is no specific carrier requirement, Code GS1-128 symbology should be used as the symbology in Zones C and D. Code GS1-128 is a variant of Code 128. Its use is exclusively licensed by GS1 US (www.gs1us.org).

Experienced bar code vendors, including those identified at http://www.bisg.org/barcoding/bc_suppliers.html are knowledgeable regarding these specifications.

Shipping Label Placement

The original DEIG Guidelines called for the Shipping Label to be placed on the top of the carton. The current GS1 US “Application Standards for Shipping Container Codes” calls for the placement of the Shipping Label on the side of the carton. To accommodate both top and side labeling, as well as provide guidelines for those that are transitioning from top to side or both, these revised DEIG Guidelines contain standards for each.

Ultimately, the placement of Shipping Labels will be agreed to by trading partners based on the needs and abilities of both the shipper and receiver. However, it is recommended that as enhancements to shipping or receiving operations are planned, the ability to utilize both side- and top-label be considered.

Top Labeling

Shipping Labels placed on the top of the carton must adhere to the following general guidelines (examples are provided in Appendix B, Figure B-1):

- The Shipping Label must be placed so it does not cover the seam of the carton. If placed on the seam, the label could be damaged when the carton is opened or bar codes could be distorted by the seam.
- The Shipping Label must be placed in such a way that the tape used in sealing the carton does not cover any bar code or other critical information on the Shipping Label.
- Ideally, the Shipping Label should be placed so that no bar code, particularly that of the SSCC, appears any closer than 1¼” from any natural edge of the carton.
For small cartons where the top surface does not allow for all of the above guidelines to be followed, the exceptions below are allowed:

- The Shipping Label should be placed on top of any sealing tape.
- If the Shipping Label is placed in a manner in which the SSCC bar code will appear closer than 1¼” to the edge and side of the top of the carton, the label should be placed in such a way that the SSCC bar code is placed away from the short edge of the carton so that the quality of the bar code is not diminished if the corner of the carton is damaged.
- If the Shipping Label must be placed across the seam of the carton, care must be taken that no bar code or other critical information crosses the seam and could be lost when the carton is opened.

**Side Labeling**

In keeping with the guidelines set forth by the GS1 US “Application Standards for Shipping Container Codes,” Shipping Labels placed on the side of the carton must meet the following criteria (examples are provided in Appendix B, Figure B-2):

- Shipping Labels must be placed on the long side of the carton with the bar codes in a vertical bar or “picket fence” orientation. In order to achieve this picket fence orientation, most labels will need to be placed straight up and down.
- Shipping Labels must be placed in such a way that the SSCC bar code appears no closer than 1¼” from the natural bottom of the carton.
- The Shipping Label must be placed so that the SSCC bar code appears no closer than 1¼” from the edge of the carton.
- If the Shipping Label is placed on the same side of the carton as a Product Label it must be placed to the left side of the Product Label so that it does not obscure any of the information on the Product Label and so that no bar code appears closer than 1¼” from the natural edge of the carton. (See example under Figure B-3 in Appendix B.)

For cartons where the height of the carton is less than that of the Shipping Label, one of the following must occur:

- The entire Shipping Label may be placed on the top of the carton following the guidelines for Top Labeling.
- *OR*
- The shipping label may be placed on the side of the carton with the bottom of the bar code placed at least 1¼” from the natural bottom; and the excess portion of the top of the label should be folded over to the top of the carton. Care must be taken in these cases to not crease the Shipping Label on any bar codes or other critical information.
UPS Shipping Label Template

In cooperation with the Book Industry Study Group, UPS has developed a template for a Shipping Label compliant with the UPS shipping label standards while leaving room to accommodate the information recommended in the DEIG Guidelines.

To allow for all of the information to appear on the shipping label, UPS has reduced their typically recommended height requirement for the Tracking Number bar code from 1.0" to 0.75". Additionally, UPS has agreed to change many of the font sizes typically required. A sample of the UPS shipping label template can be found in Appendix A under Figure A-5. The specifications pertaining to fonts and bar code heights must be adhered to for acceptance by UPS.

In addition, BISG has developed two further templates that have been approved by UPS for use with a 4.0"x 6.0" and 4.0"x 7.0" Shipping Label where the Ship To and Ship From addresses appear side by side, more closely resembling the Shipping Label standards for other carriers. These templates can be found under Figures A-6 and A-7 in Appendix A. While these templates were developed for the industry as a whole, it remains the responsibility of each company using them to obtain appropriate certification from UPS. Companies should reference the “BISG Layout” when corresponding with UPS during the certification process.

Whereas the general recommendation for bar coding the Shipping Label is based on GS1-128 symbology, Shipping Labels prepared for UPS must utilize Code-128 symbology for UPS specific bar codes. Bar codes appearing in Zones E though I must still be based on GS1-128 (UCC/EAN – 128) symbology. Please refer to the “UPS Guide for Labeling” (available from UPS representatives) for exact specifications.

Care must be taken to use the correct Application Identifier (AI) codes and data construction as outlined in Appendix D, Table D-3, of this document. Table D-4 defines font sizes and bar code heights specific to the BISG Layout for the UPS label. For information on the creation of the MaxiCode, Routing codes, bar code symbologies and other UPS-related information, the latest version of the “UPS Guide to Labeling” should be consulted.
Returns

The recommendations outlined above for Shipping Labels can also be used for the shipment of returns back to the vendor. In these cases, the information contained in Zone E (Receiver/Customer Segment) would be information required by the receiver of the return. Additionally, Zone F (Shipper/Supplier Segment) would be reserved for internal information that the shipper of the returns may require.

There have been additional Application Identifiers (AIs) assigned specifically for use with returns; these can be found in Table D-3 in Appendix D.

An alpha code has been designated to identify the return product type; this information would be located in Zone E of the Shipping Label. Additional information on the use of this code can be found in Table D-1 in Appendix D. Samples of Shipping Labels used for returns can be found in Appendix A under Figures A-8, A-9 and A-10.
PRODUCT LABEL

The Product Label contains information relevant to the contents of the carton but not to the particular shipment. In an effort to minimize the duplication of information on the Shipping and Product Label, and to eliminate the need to print two labels at the time of shipment, the following standards must be used when labeling or marking product information on full carton packs only. It is impossible to generate a Product Label for a mixed carton pack.

GS1-128 (UCC/EAN-128) symbology must be used for all bar codes observing the correct Application Identifiers (AIs) as outlined in Table D-3 in Appendix D.

Note: With the emergence of new technology and the continued need for title marketing, it is understood that labeling may not be the only method for identifying the contents of a carton.

Product Label Layout

The Product Label follows an approach similar to that of the Shipping Label and is composed of zones. The height of the zones can be adjusted to accommodate varying amounts of information. However, the sequence of the zone layout, the sequence of information within each zone, and the bar code minimum specifications must be preserved.

Product Label Size

Label Height – The recommended minimum product label height is 4.0”.

Label Width – The recommended minimum product label width is 6.0”.

Zone Height – The recommended Zone Height for Zones 1 & 2 is 1.0” and for Zone 3 is 2.0” on a standard 4.0”x 6.0” label.

Zone Width – The width of the zones will be the width of the label less borders.

Zoned Product Information

The following explains the various zones, or order, in which the product information must be placed on a Product Label. Table D-2 in Appendix D shows the various zones and a more detailed listing of some of the items that would be included in the various zones. The correct AI prefixes and data construction for bar coded information are contained in the list in Appendix D, Table D-3.
Zone 1
This zone, the first block of information to appear on a Product Label, contains human readable non-bar coded information specific to the product. Typically, and to eliminate repeated information, this field includes information that is not otherwise bar coded on the carton.

All human readable information with the exception of the title must be printed at a minimum 12pt font. The title must be printed at a minimum 14pt Bold font.

Required information for Zone 1 includes:

- Title or Product Description
- Publisher
- Country of Origin

Optional information for Zone 1 includes:

- Author
- On-Sale Date -- The date before which a retailer may not offer the book for sale, often referred to as “strict on sale date”.
- Technical Information for Media Products -- Depending on the product this could be cassette, DVD, CD, etc.

In cases where bar coded information is not being directly printed on the carton but is on a separate label, text for bar coded information may also appear in this zone.

Zone 2
The second zone, the middle block of information on a Product Label, is reserved for publisher-specific information, which may or may not be bar coded depending on the need of the publisher. This information could include the publisher purchase order, printing number and Cover 4 bar code designation.

When showing the Cover 4 bar code designation, the following abbreviations must be utilized: EAN, UPC or E/U if the title has both an EAN and UPC on Cover 4. Note, however, that dual bar codes are not compliant with BISG Policy Statement POL-0701 on products shipped March 31, 2008 or later.

See BISG Policy Statement POL-0701 (http://www.bisg.org/documents/policies.html) for more information on the elimination of dual identifiers.

When placing a bar coded purchase order number in Zone 2, the proper AI (251) must be used and identified by either PPON (Publisher Purchase Order Number) or similar text. This approach is necessary in order to clearly identify the data as the publisher’s order number to the manufacturer and not the customer’s purchase order number to the publisher, which is located on the Shipping Label.
Zone 3
The last zone, the bottom section of information on the Product Label, is reserved for bar coded product information that is equally useful to both the shipper and the receiver.

Required data elements for Zone 3, to be correctly encoded in the bar code symbology, are:

- ISBN -- See “Special Note on Bar Coding the ISBN in Zone 3” below for information on displaying the human readable ISBN.
- Carton Quantity
- Carton Weight
- Cover Price (suggested list price)

The data elements listed above should appear in the order shown in the various examples in Appendix C.

Print quality of the bar codes used in Zone 3 must meet or exceed GS1 recommended minimums and all type fonts must be in compliance. See www.gs1us.org.

When books do not display a cover or suggested list price, the following bar code conventions must be used:

For items that have no price – (e.g., free promotional material) – “0000USD” must be encoded in the bar code, preceded by the 9012Q Application Identifier. "COVER PRICE: $00.00 USD" must be printed above the bar code. For example:

```
COVER PRICE: $00.00 USD
(9012Q) 0000USD
```

For items that are net priced – (i.e., items which do not display a suggested retail price) – “$NETUSD” must be encoded in the bar code, preceded by the 9012Q Application Identifier. "COVER PRICE: $NET USD" must be printed above the bar code. For example:

```
COVER PRICE: $NET USD
(9012Q) $NETUSD
```

In cases where printing directly on the carton would not create acceptable bar codes, this information must be labeled at the bottom of the carton, taking care not to obstruct other information and maintaining a minimum distance from the bottom or edge of the carton of at least 1¼". When printing the human readable price above the bar code symbol, it should be preceded by a dollar sign ($) as shown in the examples above.
Special Note on the ISBN Transition to 13-Digit Format

The ISBN was officially redefined from a 10-digit identifier to a 13-digit identifier on January 1, 2007. As a result, the human readable ISBN printed above the ISBN bar code on the Product Label must be displayed in the current 13-digit format. Note that there is no change in the data encoded in the bar code.


It is acceptable, during the latter stages of the transition, for a publisher to display the legacy ISBN-10 format when the publisher finds that the market requires it. The legacy ISBN-10 may be displayed either above or below the current ISBN and it should be labeled as “ISBN-10” when it is displayed.

Details regarding the transition to ISBN-13 can be found on the BISG website at www.bisg.org.

Special Note on Bar Coding the ISBN in Zone 3

Although the human readable ISBN printed above the bar code on a Product Label is shown in 13-digit format, it must continue to be encoded in the bar code as a 14-digit identifier utilizing GS1-128 (UCC/EAN-128) symbology. This identifier, also known as GTIN-14, includes the Application Identifier “01” and requires a recalculated check digit as described in Table D-3.

It is recommended that unless a publisher/supplier has specifically assigned package level identifiers, the unofficial general retailing convention of using "1" to indicate the case level packaging should be followed. When the publisher/supplier has specifically assigned package level identifiers to various carton configurations, the identifier associated with a particular carton must conform to those assignments.

Product Label Placement

Product Labels must be placed at least 1¼" from any carton edge or in such a manner that bar codes on the label do not appear closer than 1¼" from any carton edge. If using wrap-around labels, they must be printed and applied so the bar codes do not appear closer than 1¼" from the top and bottom or other edge of the carton.

Product Labels must appear on at least two sides of the carton, one of which must be the long side of the carton.

Product Label bar codes must be in a vertical bar or “picket fence” configuration.
PRODUCT LABEL CERTIFICATION PROGRAM

BISG has established a Product Label Certification Program (PLCP) as a means to achieve the benefits of widespread use of the Product Label by facilitating the implementation process. The BISG program provides convenient and efficient validation of shippers’ label implementations and assurance to recipients that the labels comply with the specifications of the previous section.

BISG’s Product Label Certification Program:

- Promotes implementation of the label through shipper education, implementation support and comprehensive feedback of non-compliance issues;
- Minimizes the number of potentially redundant certification or evaluation processes to which labels must be submitted; and
- Ensures recipients that certified Product Labels are in technical compliance with DEIG and GS1 guidelines, thus:
  - Reducing the time a recipient must spend certifying shippers’ labels
  - Reducing the in-house technical expertise required of recipients in label formatting and bar coding

The greatest value the Product Label Certification Program provides is in assisting label submitters, not in serving in a testing or policing role. BISG believes that compliant implementation will be achieved more quickly and perceived as less onerous through easy to understand feedback and suggestions for correction when compliance issues arise.

Certification – Process Overview

The BISG office manages the Product Label Certification Program. BISG has contracted with several professional Certification Agencies to perform the technical compliance testing required by the program. All Certification Agencies are:

- GS1 certified bar code suppliers
- Members of the Book Industry Study Group
- Active members of the Distribution Executives Interest Group

Organizations seeking certification must submit eight identical printed samples (not photocopies) using the same product data to the BISG office following the procedures outlined at http://www.bisg.org/documents/certification_productlabel.html.

Applicants that produce Product Labels in more than one location must submit samples from all locations to achieve certification under the program.

Sample Product Labels must be sent for recertification after changes in warehouse hardware, software, or media that may affect label quality.
Submitted Product Labels will be examined by the BISG office for format and content compliance; a label non-compliant in any aspect of these areas will be returned to the submitting organization with a non-compliance report for correction before the certification process proceeds. Product labels that are compliant in format and content will be forwarded to one or more certification agencies to be examined for technical compliance. Based on the results of the technical testing, the BISG office will either issue a Certificate of Certification and supporting material or provide detailed feedback on the non-conforming aspects of the label.

**Special Reship Considerations:**
Organizations along the supply chain that reship cartons displaying Product Labels applied by an earlier shipper may use Certificates of Certification furnished to them by the label originator to determine that the incoming labels have been certified and to provide certification assurance to later recipients.

**Certification Elements**
The Product Label will be examined and tested to confirm that it is compliant with the content and specifications described in the previous section. Elements identified as required for compliance must be present, and optional elements must conform to specifications when present.

The submitter of sample Product Labels must originate the encoded information. Submitted labels must not be a duplicate of, nor can they contain data from, samples in these guidelines.

Of particular importance, when the optional On Sale Date is shown in Zone 1, the submitting organization must sign a statement on the application confirming that the use of this date is correctly understood. The On Sale Date is the date before which a retailer may not offer the book for sale, often referred to as “strict on sale date”. Other dates such as Publication Date or Shipping Date are non-compliant in Zone 1.

**Certification – Application Process**
For instructions on how to apply for BISG’s Product Label Certification Program, visit: [http://www.bisg.org/documents/certification_productlabel.html](http://www.bisg.org/documents/certification_productlabel.html).
Certification – Results

Upon completion of the Product Label Certification Program, the BISG office will furnish the following material to the submitting organization.

If the label is found to be in compliance:

- Digital copies of the submitted labels that can be shared with the submitter’s customers, enabling the customers to have a reference if non-compliant labels are furnished in the future.
- Certificate of Certification in digital and hard copy form.
- Logo placement on the BISG website.

If the label is not in compliance:

- Digital copies of the submitted labels with an itemized breakdown of non-compliance issues.
- Support documentation such as verification scan reports.
- Links or references to specific sections of these guidelines to assist in making corrections.
- Suggested corrective actions when applicable.
CARTON MARKING RECOMMENDATIONS

Rather than using a printed Product Label, a company may choose to mark their cartons using offset, flexographic or ink jet printing. In all instances, carton information must appear in the zoned layout as explained in the section on Product Label Recommendations and outlined in Table 2 of Appendix D.

When printing bar codes directly on the carton, all bar codes must be sized properly according to Table D-2 of Appendix D, spaced with appropriate quiet zones (in the case of Code GS1-128 symbology this means at least 0.25"), and must not be printed closer than 1¼” from any edge of the carton. In cases where symbols printed directly on the carton will not scan properly, the bar coded information must appear on a label placed on the carton.
MULTI-VOLUME SETS

Multi-Volume sets must be packaged and identified in a manner that protects the integrity of the set as it flows through the supply chain. If a carton containing a multi-volume set (or sets) is not correctly recognized, the set may be broken and the individual volumes (and other components) dispersed, effectively destroying the set as an entity.

Multi-Volume sets occur in several different configurations. This section addresses recommendations intended to preserve the integrity of three configurations:

- Set is a small number of volumes
- Set is packed in and fills a single carton
- Set requires more than one carton

These recommendation for identifying cartons containing multi-volume sets detail the information to be displayed on the DEIG Product Label and describes a label to be placed across top seal of the carton.

In compliance with International and US ISBN Agency guidelines, individual volumes are to have unique ISBNs if the volumes are available for sale individually; and the set is to have a different ISBN.

Set is a Small Number of Volumes

Configuration

- The set is orderable, pickable, and saleable as a unit
- The defining factor is that several sets are small enough (in number of volumes or in physical size) to be packed inside a single shipping carton

Packaging

- Individual items making up the set are to be physically grouped or packaged together and not loose in the shipping carton
- Grouping or packaging must be done in a manner that inhibits separation of the individual volumes but does not damage the books
- Acceptable grouping or packaging methods include, but are not limited to, the following:
  - Boxed for retail display
  - In a slip case, boxed or shrink wrapped
  - Shrink wrapped, with human-readable identification of the set on the wrapping or visible on a slip sheet through the wrapping
Identification - Set
- ISBN and Bookland EAN bar code of the set are on or visible through the packaging
- ISBN and Bookland EAN bar code of individual volumes are not visible through the packaging

Identification – Carton
- If a carton contains only small multi-volume sets and no other products, a Product Label must be applied to the carton
- Human-readable information in Zone 1 of the carton Product Label describes the set
- The quantity in Zone 3 of the Product Label is the number of sets (not individual volumes)
- Human-readable ISBN and the ISBN (GTIN-14) bar code in Zone 3 of the Product Label are the set ISBN, not the ISBN of any individual title

Identification – Carton Top
- No labeling is required on the carton top identifying the carton as containing sets

Product Label for a carton containing several sets

![Product Label Example](image)

Title: Comprehensive Reference (Four Volumes)
Author: Distinguished Scholars
Publisher: Respected University Press
On Sale: 12/23/2008
Printed in USA

PPON: 123456
Barcode: EAN
Printing #: 12-08

CTN Qty: 6
CTN Wgt: 30.0 lbs.

ISBN: 978-0-234-56789-0
Cover Price: $95.00 USD

Note: A carton top label is not used on a carton containing several sets
All Volumes of a Set Are Packed in and Fill a Single Carton

Configuration
- The set is orderable, pickable, and saleable as a set
- The set fills a single shipping carton; no product not part of the set is included in the carton
- The set is intended to be broken (the carton opened) by the retail consumer upon purchase (or by a retailer for display)

Packaging
- No special packaging is required within the carton when the carton contains only a single set

Identification – Set and Carton
- If a carton contains only a single multi-volume set and no other products, a Product Label must be applied to the carton
- Human-readable information in Zone 1 of the carton Product Label describes the set
- The quantity in Zone 3 of Product Label is the quantity of the set (1); not the number of books within the carton
- Human-readable ISBN and the ISBN (GTIN-14) bar code in Zone 3 of the Product Label are the set ISBN, not the ISBN of any individual title
- An example of a properly configured Product Label is shown on the next page

Identification – Carton Top
- A human-readable label notifying supply chain handlers that the carton contains a set must be applied across the seam at the approximate center of the carton top
- An example of a properly configured Carton Top Label is shown on the next page; specifications are given on the page following
Example Labels for a Carton Containing a Single Set

Product Label

Carton Quantity is the number of sets in the carton (1)

ISBN and GTIN-14 are the identifiers for the set of sixteen volumes

Carton Top Label

Set

Do Not Open
Specifications for Carton Top Label

- A standard 4 x 6 inch label is recommended, although a smaller label may be used as long as the font specifications below are maintained.
- A sans serif font such as Arial or Univers should be used.
- The exact text shown must be used to minimize misinterpretation.
- The word “Set” must be at least 1 inch high, bold face.
- The phrase “Do Not Open” must be at least ½ inch high, bold face.
- Text should be printed in a bold color, such as red, blue, or black on a white or other light background.
- The negative of the format shown is also acceptable; i.e., white text on a bold background.
Set Requires More Than One Carton

Configuration

- The set consists of a large number of volumes, or a number of physically large volumes
- The set must be shipped in more than one carton and only volumes or other items that are a part of the set (CDs, graphics, etc.) are included in the cartons

Packaging

- No special packaging is required within the carton

Identification – Carton; more than one carton required

- A Product Label must be applied to all cartons required for the set
- The human-readable information in Zone 1 of each Product Label describes the set
- The human-readable information in Zone 1 may also identify the volumes contained in the carton to which it is applied
- The number of cartons in the set may be indicated in Zone 2 of the Product Label at the publisher’s option
- The quantity in Zone 3 of the Product Label must be the quantity of books within the carton to which the label is applied
- The ISBN of the set must be displayed as human-readable information in Zone 1 or Zone 3 of the Product Label
- There must be no ISBN (GTIN-14) bar code in Zone 3

Identification – Carton Top

- A human-readable label notifying supply chain handlers that the carton is one carton of several that together contain a set must be applied across the seam at the approximate center of the carton top
- An example of a properly configured Carton Top Label is shown on the next page; specifications are the same as those given above for the Carton Top Label associated with a single carton set, with these modifications:
  - The sequential number of the carton must be indicated in the phrase “Carton ___ of”
  - The total number of cartons must be indicated in the phrase “___ Set Cartons”
  - The numbers may be printed or hand-written in the blank spaces shown

Illustration of Labels for a Set Requiring Three Cartons

- An illustration of all labels required for a three-carton set is shown on the page following the general label examples
Example Labels for a Set Requiring More than One Carton

Product Label

```
TITLE: PROCEEDINGS OF ORGINIZATION (26 VOLUMES, VOL 1-7)  
AUTHOR: PUBLICATION COMMITTEE  
PUBLISHER: RESPECTED UNIVERSITY PRESS  
ON SALE: 12/23/2008  
PRINTED IN USA
```

```
PPON: 123456  
BARCODE  
PRINTING #: 12-08
```

```
CTN QTY: 7
```

```
CTN WGT: 28.0 lbs.
```

```
```

```
COVER PRICE: $385.00 USD
```

Carton Quantity is the number of books (not sets) in this carton (7)

ISBN is the ISBN for the complete set of 26 volumes
There is no GTIN-14 and no GTIN-14 bar code

Carton Top Label

```
Set
Do Not Open
Carton ___ of ___ Set Cartons
```
Illustration of Labels for a Set Requiring Three Cartons

Carton 1

<table>
<thead>
<tr>
<th>Title</th>
<th>Proceedings of Organization (26 Volumes, Vol 1-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>Publication Committee</td>
</tr>
<tr>
<td>Publisher</td>
<td>Respected University Press</td>
</tr>
<tr>
<td>On Sale</td>
<td>12/23/2008</td>
</tr>
<tr>
<td>Printed In USA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PPON:</th>
<th>123456</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcode:</td>
<td>EAN</td>
</tr>
<tr>
<td>Printing #:</td>
<td>12-08</td>
</tr>
</tbody>
</table>

| Carton Qty: | 7 |
| Carton Wgt: | 28.0 lbs |

| Cover Price: | $385.00 USD |

Set
Do Not Open
Carton _1_ of _3_ Set Cartons

Carton 2

<table>
<thead>
<tr>
<th>Title</th>
<th>Proceedings of Organization (26 Volumes, Vol 8-16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>Publication Committee</td>
</tr>
<tr>
<td>Publisher</td>
<td>Respected University Press</td>
</tr>
<tr>
<td>On Sale</td>
<td>12/23/2008</td>
</tr>
<tr>
<td>Printed In USA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PPON:</th>
<th>123456</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcode:</td>
<td>EAN</td>
</tr>
<tr>
<td>Printing #:</td>
<td>12-08</td>
</tr>
</tbody>
</table>

| Carton Qty: | 9 |
| Carton Wgt: | 32.0 lbs |

| Cover Price: | $385.00 USD |

Set
Do Not Open
Carton _2_ of _3_ Set Cartons

Carton 3

<table>
<thead>
<tr>
<th>Title</th>
<th>Proceedings of Organization (26 Volumes, Vol 17-20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>Publication Committee</td>
</tr>
<tr>
<td>Publisher</td>
<td>Respected University Press</td>
</tr>
<tr>
<td>On Sale</td>
<td>12/23/2008</td>
</tr>
<tr>
<td>Printed In USA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PPON:</th>
<th>123456</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcode:</td>
<td>EAN</td>
</tr>
<tr>
<td>Printing #:</td>
<td>12-08</td>
</tr>
</tbody>
</table>

| Carton Qty: | 10 |
| Carton Wgt: | 30.0 lbs |

| Cover Price: | $385.00 USD |

Set
Do Not Open
Carton _3_ of _3_ Set Cartons
Additional Resources

The resources listed here are for informational purposes only. BISG does not endorse or recommend these or other vendors of such products and services.

**GS1 US**
1009 Lenox Drive
Suite 202
Lawrenceville, NJ 08648
Phone: 609-620-0200
Email: info@gs1us.org
Website: www.gs1us.org

**Online resource of BISG member bar code suppliers**
http://www.bisg.org/barcoding/bc_suppliers.html

**UPS WorldShip**
Technical Support Desk
Phone: 888-553-1118
APPENDIX A: SHIPPING LABEL EXAMPLES

All label and bar code examples in Appendix A are illustrative only. They must not be considered actual size and in many cases have been enlarged to show detail. Please refer to Table D-1 for actual Shipping Label and bar code sizes.

**Figure A – 1:**

Sample 4.0” x 6.0” Shipping Label

<table>
<thead>
<tr>
<th>Zone A</th>
<th>Zone B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship From</td>
<td>Ship To</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone C</th>
<th>Zone D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier Bar Code</td>
<td>Carrier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone E</th>
<th>Zone F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver/Customer Segment</td>
<td>Shipper/Supplier Segment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone G</th>
<th>Zone H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Destination Code</td>
<td>Mark for Text</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone I</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCC Bar Code</td>
</tr>
</tbody>
</table>
## APPENDIX A

### Figure A – 2

**Sample 4.0”x 7.0” Shipping Label**

<table>
<thead>
<tr>
<th>Zone A</th>
<th>Zone B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship From</td>
<td>Ship To</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone C</th>
<th>Zone D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier Bar Code</td>
<td>Carrier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone E</th>
<th>Zone F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver/Customer Segment</td>
<td>Shipper/Supplier Segment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone G</th>
<th>Zone H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Destination Code</td>
<td>Mark for Text</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zone I</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCC Bar Code</td>
</tr>
</tbody>
</table>
APPENDIX A

Figure A – 3

Sample 4.0” x 6.0” Common Carrier Shipping Label

(Truckload/LTL Carrier)
APPENDIX A

Figure A – 4

Sample 4.0” x 7.0” Mark For Shipping Label

(Truckload/LTL Carrier)
APPENDIX A

Figure A – 5

Sample UPS 4.0” x 7.0” UCC-128 Shipping Label

BISG Layout with Font Sizes & Bar Code Heights
(Recommended Font for all text = Arial)
APPENDIX A

Figure A – 6

Sample UPS 4.0” x 6.0” Shipping Label

(No Bar Coded Zone E/Zone F Requirements)
APPENDIX A

Figure A – 7

Sample UPS 4.0” x 7.0” Shipping Label

Zone A
Ship From

Zone B
Ship To

Zones C&D
UPS Information

Zone E
Receiver/Customer Segment

Zones C&D
UPS Information

Zone F
Shipper/Supplier Segment

Zone I
SSCC Bar Code

US 987 9-02

UPS NEXT DAY AIR

Purchase Order: 1234567890

(400) 1234567890

Invoice #: 987654321
Carton #: 1 of 10
Ctn Weight: 12 LBS
Ship Lane: BF-03

SSCC Bar Code

Zone
1

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APPENDIX A

Figure A – 8

Sample 4.0” x 6.0” Common Carrier Returns Shipping Label

(Truckload/LTL Carrier with Partial Bar Code Requirements)
APPENDIX A

Figure A - 9

Sample 4.0"x 7.0" Common Carrier Returns Shipping Label

(Truckload/LTL Carrier with Additional Bar Code Requirements)
APPENDIX A

Figure A – 10

Sample UPS 4.0”x 6.0” Returns Shipping Label

(No Bar Coded Zone E/Zone F Requirements)
APPENDIX B: SHIPPING LABEL PLACEMENT EXAMPLES

All label and bar code examples in Appendix B are illustrative only. They must not be considered actual size and in many cases have been enlarged to show detail.

Figure B – 1

Top-Placed Shipping Label Examples

Figure B.1.1  Full-Sized Carton

Figure B.1.2  Small Carton Option 1

Figure B.1.3  Small Carton Option 2
Appendix B

Figure B – 2
Side-Placed Shipping Label Examples

Figure B.2.1 Full-Sized Carton

Figure B.2.2 Short Carton

Figure B – 3
Shipping and Product Label on the Same Carton Side
APPENDIX C: PRODUCT LABEL EXAMPLES

All label and bar code examples in Appendix C are illustrative only. They must not be considered actual size and in many cases they have been enlarged to show detail.

Most of the examples in Appendix C show the ISBN in the current 13-digit format only. However, the legacy ISBN-10 may also be displayed as shown in Figure C-2 if, in the opinion of the publisher, it is needed.
NOTE: Although the human readable ISBN above the bar code in Zone 3 is shown in 13-digit format, the ISBN is actually encoded as a GTIN-14 (14-digit Global Trade Item Number). The encoding is described on page 13. The human readable data below the bar code displays the complete encoded number.

This approach is in keeping with book industry precedence and GS1 standards for packaging and carton contents designation.

NOTE: The words “BARCODE EAN” indicate that the books inside the carton are marked with a Bookland EAN bar code on Cover 4.

Alternatively, this could read either “BARCODE UPC” or “BARCODE E/U”. See page 8 for further information.
APPENDIX C

Figure C – 2

Sample 6.0” x 4.0” Dual Numbered Product Label

<table>
<thead>
<tr>
<th>TITLE: LATEST BESTSELLING TITLE, THE</th>
<th>ON SALE: 12/30/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHOR: WRITER, GREAT</td>
<td>PRINTED IN USA</td>
</tr>
<tr>
<td>PUBLISHER: HAPPY PUBLISHER</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PPON: 123456</th>
<th>BARCODE: EAN</th>
<th>PRINTING #: 12-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>(251) 123456</td>
<td>(10) 12-08</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CTN QTY: 24</th>
<th>CTN WGT: 10.0 lbs.</th>
<th>COVER PRICE: $50.00 USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(30) 24</td>
<td>(3401) 000100</td>
<td>(9012Q) 5000USD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(01) 19781234567894</td>
<td>(9012Q) 5000USD</td>
</tr>
</tbody>
</table>
## APPENDIX C

**Figure C – 3**

Sample 12.0” x 4.0” Wrap-Around Product Label

<table>
<thead>
<tr>
<th>Long Side View</th>
<th>End View</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TITLE: LATEST BESTSELLING TITLE</th>
<th>AUTHOR: WRITER, GREAT</th>
<th>PUBLISH: HAPPY PUBLISHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPON: 123456</td>
<td>EAN</td>
<td>PRINTING #: 12-08</td>
</tr>
<tr>
<td>CTN QTY: 24</td>
<td>CTN WGT: 10.0 lbs.</td>
<td></td>
</tr>
<tr>
<td>ISBN: 978-1-234-56789-7</td>
<td>COVER PRICE: $50.00 USD</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TITLE: LATEST BESTSELLING TITLE</th>
<th>AUTHOR: WRITER, GREAT</th>
<th>PUBLISH: HAPPY PUBLISHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPON: 123456</td>
<td>EAN</td>
<td>PRINTING #: 12-08</td>
</tr>
<tr>
<td>CTN QTY: 24</td>
<td>CTN WGT: 10.0 lbs.</td>
<td></td>
</tr>
<tr>
<td>ISBN: 978-1-234-56789-7</td>
<td>COVER PRICE: $50.00 USD</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

Figure C – 4

Offset Printing of Title Information

The Latest Bestselling Title

by Great Writer

On Sale Date 11/11/2003
Happy Publisher, Inc.
BARCODE: EAN

CTN QTY: 24
CTN WGT: 10.0 lbs.

PRICE: $50.00 US / $75.00 CA

The Book Industry Study Group (BISG)
APPENDIX C

Figure C – 5
Offset Printing with Labeled Bar Code Information

REMEMBER: Quiet Zones of 0.25” must be maintained or the bar codes may not scan.
APPENDIX C

Figure C – 6

Inkjet

Spray-on Labeling

---

**APPENDIX C**

**Figure C – 6**

**Inkjet**

**Spray-on Labeling**
## APPENDIX D: DATA DEFINITIONS AND ENCODING

### Table D – 1

**Shipping Label Zones Defined**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Information</th>
<th>Data Content Examples</th>
<th>Size</th>
<th>Mandatory?</th>
</tr>
</thead>
</table>
| A    | Ship From                    | Always contains the name and address of the Shipper.                        | N/A                                    | Height: 1.0” ± 0.2”  
Width: 1.25”                                                            | YES        |
| B    | Ship To                      | Always contains the name and address of the recipient.                      | N/A                                    | Height: 1.0” ± 0.2”  
Width: 2.75”                                                            | YES        |
| C    | Carrier Routing Bar Code     | Bar-coded carrier information.                                             | Postal bar code  
Destination SAN  
Carrier PRO number                                                     | Height: 1.0” ± 0.2”  
Width: Minimum of 2.5”, allowing for Zone D to appear next to Zone C  
Or minimum of 4.0” to accommodate longer or multiple bar codes, moving Zone D directly below Zone C  
BAR CODE SPECIFICATION  
Height: 0.5” Minimum  
X-dimension: 0.015”  
Recommended  
(See Table D-4 for UPS Specifications)                                 | Optional, exact requirements determined by the delivering carrier.         |
### Table D – 1 (Continued)

**Shipping Label Zones Defined**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Information</th>
<th>Data Content Examples</th>
<th>Size</th>
<th>Mandatory?</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Carrier Text Segment</td>
<td>Information required by the carrier to deliver the shipment.</td>
<td>Carrier name&lt;br&gt;SCAC&lt;br&gt;PRO number&lt;br&gt;Trailer number&lt;br&gt;Class of service</td>
<td>Height: 1.0” ± 0.2”&lt;br&gt;Width: 1.5” when used on the same plane as Zone C or up to 4.0” when used below Zone C</td>
<td>Optional, exact requirements determined by the delivering carrier.</td>
</tr>
<tr>
<td>E</td>
<td>Receiver/Customer Segment</td>
<td>Information required by the receiver of the shipment. May appear as either human readable or bar coded depending on available space and agreement between trading partners.</td>
<td>Department number&lt;br&gt;Carton quantity&lt;br&gt;Package identifiers&lt;br&gt;Purchase order numbers (In the event of multiple purchase orders packed in the same carton the text “MIXED POS” should appear.)&lt;br&gt;Return claim numbers&lt;br&gt;Return product codes - C=Covers&lt;br&gt; - B=Books&lt;br&gt; - M=Mixed&lt;br&gt;Shipper SAN (For returns only)</td>
<td>Height: 1.0” ± 0.2”&lt;br&gt;Width: 2.0” if appearing on the same plane as Zone F or 4.0” if appearing above Zone F&lt;br&gt;BAR CODE SPECIFICATION (if applicable)&lt;br&gt;Height: .5” Minimum&lt;br&gt;X-dimension: .015”&lt;br&gt;Recommended</td>
<td>Requirements determined by trading partners.</td>
</tr>
<tr>
<td>F</td>
<td>Shipper/Supplier Segment</td>
<td>Shipper-specific information required by the shipper to process the shipment.</td>
<td>Waves&lt;br&gt;Deliveries&lt;br&gt;Dock floor spots&lt;br&gt;Carton counts&lt;br&gt;Weights</td>
<td>Height: 1.0” ± 0.2”&lt;br&gt;Width: 2.0” if appearing on the same plane as Zone E or 4.0” if appearing below Zone E&lt;br&gt;BAR CODE SPECIFICATION (if applicable)&lt;br&gt;Height: 0.5” Minimum&lt;br&gt;X-dimension: 0.015”&lt;br&gt;Recommended</td>
<td>Optional, exact requirements determined by supplier.</td>
</tr>
</tbody>
</table>
### Table D – 1 (Continued)

**Shipping Label Zones Defined**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Information</th>
<th>Data Content Examples</th>
<th>Size</th>
<th>Mandatory?</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Final Destination Code</td>
<td>“Ship For” or “Mark For” information pertaining to the final destination of the shipment. Usually in bar-coded formats. Typically used to identify the final destination when shipping via a third party, DC or consolidator.</td>
<td>Store numbers Destination SAN</td>
<td>Height 1.0” ± 0.2” or 2.0” ± 0.4” to accommodate certain bar coded information (height of G must match height of H) Width: 2.5” BAR CODE SPECIFICATION Height: 0.5” Minimum X-dimension: 0.015” Recommended</td>
<td>Required only if Zone H is being used.</td>
</tr>
<tr>
<td>H</td>
<td>Final Destination Text</td>
<td>“Ship For” or “Mark For” text when shipping via a third party, DC or consolidator.</td>
<td>Final destination address</td>
<td>Height 1.0” ± 0.2” or 2.0” ± 0.4”, depending on the height of Zone G Width: 1.5”</td>
<td>Required only if Zone G is being used.</td>
</tr>
<tr>
<td>I</td>
<td>SSCC Bar Code</td>
<td>Carton identifier for ASN bar coded in GS1-128 format (formerly UCC/ EAN-128) and with human readable text identified by “SSCC”.</td>
<td>N/A</td>
<td>Height: 2.0” Width: 4.0” BAR CODE SPECIFICATION (if applicable) Height: 1.25” Minimum X-dimension: 0.020” Minimum</td>
<td>YES</td>
</tr>
</tbody>
</table>
### APPENDIX D

#### Table D – 2

**Product Label & Carton Marking Zones Defined**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Data Content Examples</th>
<th>Font Recommendations</th>
<th>Bar Code Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product Information Human Readable</td>
<td>Title, Author, Publisher, On-Sale Date, Country of Origin</td>
<td>Title: 14pt Bold, Other Information: 12pt</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Publisher Information Human Readable and/or Bar Coded</td>
<td>Publisher Purchase Order, Printing Number, Job Number, Cover 4 Bar Code, Designation</td>
<td>Bar Code Indicator: 36pt Bold, Height: 0.5” Minimum, X-dimension: 0.015” Minimum</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Product Information Bar Coded</td>
<td>ISBN, Carton Quantity, Cover Price, Carton Weight</td>
<td>Text Above Bar Codes: 12pt Bold, Text Below Bar Codes: 8pt, Height: 0.5” Minimum, X-dimension: 0.015” Minimum</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX D

### Table D – 3

Acceptable Application Identifiers & Their Uses

<table>
<thead>
<tr>
<th>Field Name</th>
<th>AI</th>
<th>Use</th>
<th>Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Purchase Order Number</td>
<td>400</td>
<td>Identifies the customer’s purchase order, to be used on the shipping label only in the Customer Segment (Zone E). Not to be used in carton markings or to identify any purchase orders other than that of the receiver at the ultimate destination.</td>
<td>n3 + an..13</td>
<td>1234567890 = 4001234567890</td>
</tr>
<tr>
<td>Mark For Store Number</td>
<td>91</td>
<td>To identify the final destination store number, typically used only in the Mark For (Zone G) of the shipping label.</td>
<td>n2 + n..6</td>
<td>1234 = 911234</td>
</tr>
</tbody>
</table>
| SAN                                 | 410 | To identify the SAN of either the consolidation point or final destination (depending on which zone it is used in). In the case of returns SAN can be used to identify the shipper of the return when used in Zone E. | n3 + n13
  n13 = P + SAN + C
  Where:
P = 079999 (UPC SAN Prefix)
SAN = First 6 digits of SAN
C = Check Digit | 123-4560 = 4100799991234562 |
| Ship To Postal Code                 | 420 | To identify the postal bar code of the ship to destination.         | n3 + n..5               | 98765 = 42098765          |
  or
  n3 + n..9
| SSCC                                | 00  | To identify the Serial Shipping Container Code (SSCC) in a GS1-128 (UCC/EAN-128) bar code. Associates the carton to contents data in the ASN transmissions. | n2 + n18                | 012345670123456782 = 00012345670123456782 |
### Table D–3 (Continued)

**Acceptable Application Identifiers & Their Uses**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>AI</th>
<th>Use</th>
<th>Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carton Quantity</td>
<td>30</td>
<td>To identify the total number of units contained in the shipping container.</td>
<td>( n_2 + n_{.6} )</td>
<td>24 = 3024</td>
</tr>
<tr>
<td>Carton Weight</td>
<td>3401</td>
<td>To identify the weight of the shipping container in pounds. (Implies 1 decimal place.)</td>
<td>( n_4 + n_6 )</td>
<td>10.0 lbs. = 3401000100</td>
</tr>
<tr>
<td>Cover Price</td>
<td>9012Q</td>
<td>To display the US cover price in a bar-coded format. Implies two decimal places. There is no upper limit to the representation of price. In the case of a non-US cover price, the appropriate ISO currency identifier should be used. Should match the bar-coded price on cover four of the actual book.</td>
<td>( n_4 + a_1 + n_{..\infty} + a_3 )</td>
<td>$50.00 USD = 9012Q5000USD or $75.00 CAD = 9012Q7500CAD</td>
</tr>
<tr>
<td>ISBN: GS1-128 Format</td>
<td>01</td>
<td>To identify the ISBN of the product in GS1-128 format (formerly UCC/EAN-128).</td>
<td>( n_2 + n_{14} ) \n( n_{14} = P + ISBN12+C ) \nWhere: \n( P=1 ) \nISBN12 = first 12 digits of ISBN (drop original Check Digit) \nC = Recalculated Check Digit</td>
<td>978-1-234-56789-7 = 0119781234567894</td>
</tr>
<tr>
<td>Printing Number</td>
<td>10</td>
<td>Used to identify the printing number for the publisher.</td>
<td>( n_2 + an_{..18} )</td>
<td>11-03 = 101103</td>
</tr>
<tr>
<td>Publisher Purchase Order</td>
<td>251</td>
<td>Used to identify the purchase order from the publisher to the binder. Used only in carton markings, not on shipping labels.</td>
<td>( n_3 + an_{..30} )</td>
<td>123456 = 251123456</td>
</tr>
</tbody>
</table>
## APPENDIX D

### Table D – 4

**UPS Specification for Shipping Label**

Font sizes and bar code heights for BISG Layout

(Refer to the “UPS Guide to Labeling” for additional specifications)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Section</th>
<th>Description</th>
<th>Font Size / Bar Code Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(ARIAL should be used for all fonts unless otherwise indicated)</td>
</tr>
<tr>
<td>A</td>
<td>Ship From</td>
<td>Ship From Title</td>
<td>Size: 8pt Bold</td>
</tr>
<tr>
<td>A</td>
<td>Ship From</td>
<td>Shipper Name and Address</td>
<td>Size: 8pt</td>
</tr>
<tr>
<td>B</td>
<td>Ship To</td>
<td>Ship To Title</td>
<td>Font: 10pt Bold</td>
</tr>
<tr>
<td>B</td>
<td>Ship To</td>
<td>Recipient Name and Street Address</td>
<td>Font: 10pt</td>
</tr>
<tr>
<td>B</td>
<td>Ship To</td>
<td>Recipient City, State and Zip</td>
<td>Font: 12pt Bold</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS MaxiCode</td>
<td>Refer to “UPS Guide for Labeling” for MaxiCode specifications</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS Routing Code</td>
<td>Font: 28pt Bold</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>Postal Bar Code</td>
<td>Bar Code Height: 0.50&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Refer to “UPS Guide to Labeling” for other bar code specifications.</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS Service Title</td>
<td>Font: 16pt Bold</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS Tracking Number (Text)</td>
<td>Font: 8pt</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS Service Icon</td>
<td>Font: 30pt Bold</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS Tracking Number Bar Code</td>
<td>Bar Code Height: 0.75&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Refer to “UPS Guide to Labeling” for other bar code specifications</td>
</tr>
<tr>
<td>C/D</td>
<td>Carrier Segment</td>
<td>UPS Billing Type &amp; URC (UPS Routing Code) Version</td>
<td>Font: 8pt</td>
</tr>
</tbody>
</table>
Table D – 4 (Continued)

UPS Specification for Shipping Label

<table>
<thead>
<tr>
<th></th>
<th>Receiver/Customer Segment</th>
<th>See Table D-1</th>
<th>See Table D-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Shipper/Supplier Segment</td>
<td>See Table D-1</td>
<td>See Table D-1</td>
</tr>
<tr>
<td>G</td>
<td>Final Destination Code</td>
<td>See Table D-1</td>
<td>See Table D-1</td>
</tr>
<tr>
<td>H</td>
<td>Final Destination Text</td>
<td>See Table D-1</td>
<td>See Table D-1</td>
</tr>
<tr>
<td>I</td>
<td>SCC Bar Code</td>
<td>See Table D-1</td>
<td>See Table D-1</td>
</tr>
</tbody>
</table>
APPENDIX E: CALCULATIONS

Calculation E – 1

Encoding ISBN in GTIN-14 format for Zone 3 of the Product Label

This section illustrates the computation to encode the ISBN as a GTIN-14 (14-digit Global Trade Item Number) for the product bar code in Zone 3 of the book product label.

This approach is in keeping with book industry precedence and GS1 standards for packaging and carton contents designation.

Given the ISBN: 978-1-234-56789-7

Prefix the ISBN with ‘1’ (carton indicator, standard case pack by unofficial convention)
(Other values for the indicator may be assigned in the future)

Drop the original check digit of ‘7’ (the last digit)

Resulting Number: 1 978 123456789

Calculate a new check digit; multiply alternate digits by 3 and 1 beginning at the right, with multipliers alternating to the left.

<table>
<thead>
<tr>
<th>1</th>
<th>9</th>
<th>7</th>
<th>8</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>21</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>1</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>3</td>
<td>15</td>
<td>6</td>
<td>21</td>
<td>8</td>
</tr>
</tbody>
</table>

Sum the products: 3 + 9 + 21 + 8 + 3 + 2 + 9 + 4 + 15 + 6 + 21 + 8 + 27 = 136

Divide the sum by 10: 136/10 = 13, remainder 6

Subtract the remainder from 10: 10 – 6 = 4

The new check digit is 4 (If remainder = 0, check digit = 0)

GTIN-14 = 19781234567894

Using the Application Indicator of ‘01’, data configured above with new check digit of 4:

ISBN encoded as a GTIN-14 for the Product Label: 0119781234567894

(Note that the Application Indictor of ‘01’ is not a part of the GTIN-14 and is not used in the calculation.)
APPENDIX E

Calculation E–2

Constructing the SSCC for Zone I of the Shipping Label

This section illustrates two ways to construct the SSCC, the Serial Shipping Container Code or “License Plate Number.” This number is bar coded in Zone I of the Shipping Label and is to be used in connection with data from the Advance Ship Notice (ASN) to identify the carton and its contents. When an ASN is not sent, the wording “ASN NOT SENT” shall be displayed in Zone

SSCC Construction Using the GS1 Company Prefix

Publishers that have a GS1 Company Prefix should use the following calculations. Publishers who do not have a GS1 Company Prefix should use the computation on the next page, which incorporates their ISBN prefix.

GS1 Company Prefix = 0614141 (example)

Extension Digit = Begin with ‘0’; allows increase in available SSCCs by a factor of 10

Carton Serial Number = 235 (235th carton shipped, for example)

Format = Extension Digit + GS1 Company Prefix + Carton Serial Number (Total of 17 digits)

Data = 00614141 000000235 (Total of 17 digits)

Compute the check digit for the data:

Multiply alternate digits by 3 and 1 beginning at the right, with multipliers alternating to the left:

<table>
<thead>
<tr>
<th>0</th>
<th>0</th>
<th>6</th>
<th>1</th>
<th>4</th>
<th>1</th>
<th>4</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>2</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
</tr>
</tbody>
</table>

| 0 | 0 | 18 | 1 | 12 | 1 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 15 |

Sum the products: $0 + 0 + 18 + 1 + 12 + 1 + 12 + 1 + 0 + 0 + 0 + 0 + 0 + 0 + 6 + 3 + 15 = 69$

Divide the sum by 10: $69/10 = 6$, remainder 9

Subtract the remainder from 10: $10 – 9 = 1$

The check digit is 1 (If the remainder is 0, check digit is 0)

SSCC = 006141410000002351

Using the Application Indicator of ‘00’, data computed above, and the new check digit:

Encoded SSCC for the Shipping Label: 00006141410000002351

(Note that the Application Indicator of ‘00’ was not used in the calculation of the check digit)
Constructing the SSCC for Zone I of the Shipping Label (Continued)

SSCC Construction Using the ISBN Prefix

When a publisher does not have a GS1 Company Prefix, the ISBN prefix may be used.

ISBN Prefix = 9781234

Extension Digit = Begin with ‘0’; allows increase in available SSCCs by a factor of 10
Carton Serial Number = 235 (235th carton shipped, for example)
Format = Extension Digit + ISBN Prefix + Serial Number of Carton (Total of 17 digits)
Data = 09781234000000235 (Total of 17 digits)

Compute the check digit for the data:

Multiply alternate digits by 3 and 1 beginning at the right, with multipliers alternating to the left:

<table>
<thead>
<tr>
<th>0</th>
<th>9</th>
<th>7</th>
<th>8</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>2</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>X3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
<td>x1</td>
<td>x3</td>
</tr>
</tbody>
</table>

0 + 9 + 21 + 8 + 3 + 2 + 9 + 4 + 0 + 0 + 0 + 0 + 0 + 0 + 6 + 3 + 15 = 69
Divide the sum by 10: 70/10 = 7, remainder 0
Subtract the remainder from 10: 10 - 0 = 10
The check digit is 0 (if the remainder is 0, check digit = 0)

SSCC = 097812340000002350

Using the Application Indicator of ‘00’, the data computed above, and new check digit:

Encoded SSCC for the Shipping Label: 00097812340000002350

(Note that the Application Indicator of ‘00’ was not used in the calculation of the check digit)