DataBar at a Glance for Produce Suppliers

This document is intended to provide you with a high level overview of the necessary information to assist you in your transition into a barcode world. Should you require more information please visit http://www.gs1.org/productssolutions/barcodes/databar/ or contact your local GS1.

How do I get started?

IF YOU ARE NOT ALREADY A GS1® MEMBER, the first step in building a GTIN® (Global Trade Item Number®) is to obtain a GS1 Company Prefix from your local GS1 Member Organization. To obtain a GS1 Company Prefix contact GS1 US™, GS1 Canada, or your country's GS1 Member Organization.

IF YOU ARE A GS1 MEMBER, before your company can begin using the GS1 DataBar bar code "GS1 DataBar Stacked Omnidirectional" (formerly known as RSS-14 Stacked Omnidirectional), you must create a GTIN to be encoded in the bar code. The GTIN is your U.P.C. number, if you are a GS1 Canada or GS1 US member. If you are a member of another GS1 Member Organization, then your GTIN is your EAN number. U.P.C.'s are 12 digits in length and EAN's are 13 digits in length. The DataBar Stacked Omnidirectional bar code holds a 14-digit number. In order to make your U.P.C. or EAN number 14 digits, you will need to zero fill your 12- or 13-digit number with zeros to the left of the number to make it 14. Please see the instructions below on how to do this.

Both Wal-Mart and Loblaws requires that the label contains both the human readable International Federation for Produce Standards (IFPS) Price Look Up (PLU) number and the GS1 DataBar bar code. Assign a GTIN for each PLU which uniquely identifies the product as your own and then provide your product list to Loblaw Companies. (For further information on IFPS PLUs for produce, visit www.plucodes.com)

The examples below provide details on how to construct your 14-digit number to be encoded in the GS1 DataBar Stacked Omnidirectional bar code. The following is a reference guide:
CP= GS1 Company Prefix
IR = Item Reference Number
CD = Check Digit.

It is important your GS1 DataBar Stacked Omnidirectional bar code be 8 mil or larger

How do I construct a 14-digit number to be encoded in the GS1 DataBar bar code?

If you have a GS1 Company Prefix from GS1 US or GS1 Canada:

1. Add two zeroes in the first two positions.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD
0	0												

2. Add your GS1 Company Prefix,--- this number is 6 to 9 digits in length.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD
0	0	8	2	5	6	7	0						

3. Add your Item Reference (product code) for that particular product--- this number is 2 to 5 digits in length, depending on the length of your GS1 Company Prefix.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD
0	0	8	2	5	6	7	0	1	2	3	4	5	

4. Use the link below to calculate the check digit:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD
0	0	8	2	5	6	7	0	1	2	3	4	5	9

www.gs1.org/productssolutions/barcodes/support/check_digit_calculator.html

For GS1 Company Prefixes assigned anywhere aside from GS1 US or GS1 Canada, follow the same above **with the exception of only adding one leading zero** and not two as shown in step #1.

Example:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	CP	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD
0	8	2	5	6	7	0	9	1	2	3	4	5	4

Note: only one zero begins the data structure.

Can the PLU be used for the item reference?
Yes, it can be, assuming there are enough digits after your GS1 Company Prefix in your Item Reference Number. Many packer / shippers may find they have only two digits that comprise the Item Reference, and it may be useful to devise your own numbering system that works best with your database, data retrieval, and / or inventory system. Please don't build intelligence in your numbering of products.

Example of how GTINs may be organized as a 1:1 ratio of GTIN:PLU

1	2	3	4	5	6	7	8	9	10	11	12	13	14	Product Description				
0	0	CP	CP	CP	CP	CP	CP	CP/IR	CP/IR	CP/IR	IR	IR	CD	PLU	Category	Commodity	Variety	Size
0	0	8	2	5	6	7	0	0	0	0	0	0	2	4015	Fruit	Apple	Red Delicious	Small
0	0	8	2	5	6	7	0	0	0	0	0	1	9	4016	Fruit	Apple	Red Delicious	Large
0	0	8	2	5	6	7	0	0	0	0	0	2	6	4170	Fruit	Apple	Rome	Small

Given best practices suggested by the PEIB, there is a 1:1 ratio of PLU to GTIN.

How do I know the quality of my DataBar Barcode is acceptable?
To determine if your barcode is of high quality there are a number of different barcode verification service providers.

ECCnet Image & Validation (ECCnet I&V) offers a Bar Code (including DataBar) Scan Verification service. Bar codes are tested for global standards compliance and checked on a variety of point-of-scale scanners to ensure that each one passes the "real-world" test.
It is understood that DataBar bar codes are being applied to produce, therefore it is not necessary to send the product to ECCnet I&V, simply send the DataBar sticker that will be applied to the product.

For more information on the Scan Validation services please visit
http://www.gs1ca.org/page.asp?LSM=0&intNodeID=665&intPageID=535